

PRINCIPLES
ON PAINTING
COMPOSITION:
LANDSCAPE AND
ETCHING. BY
HENRY F. W. G. F. N. Z.

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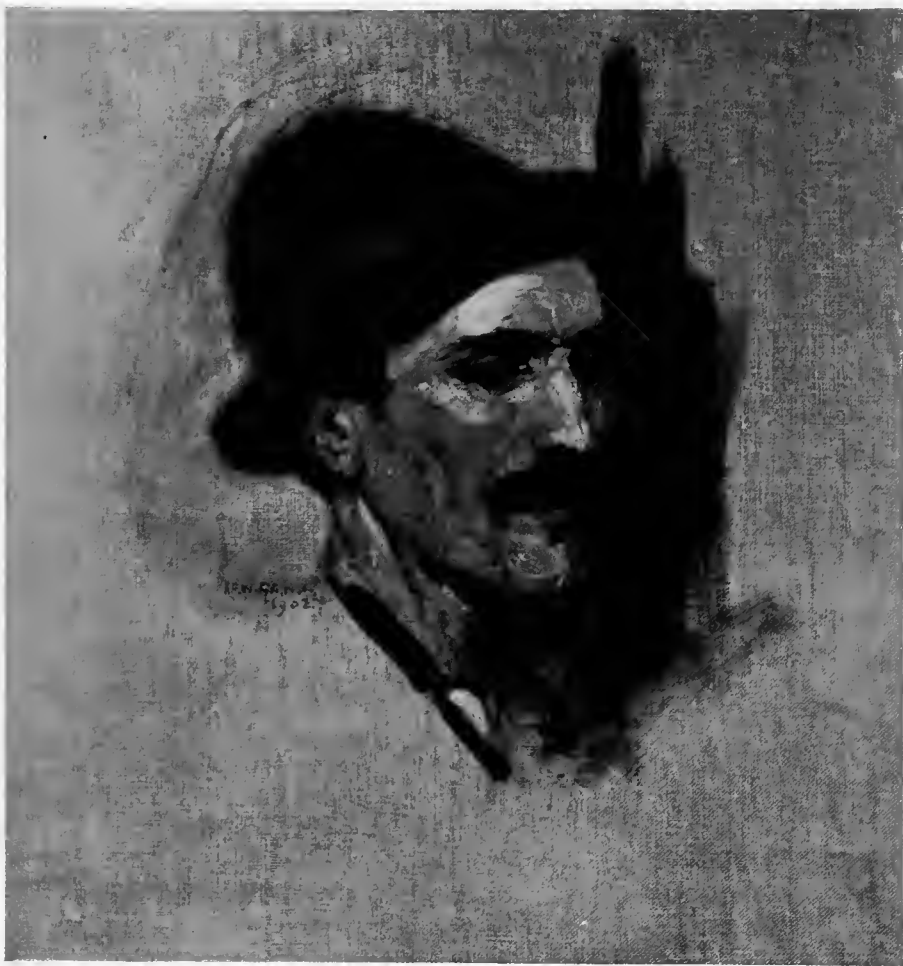
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**STUDY OF A HEAD FROM THE OIL PAINTING
(IN DIRECT METHOD).**

BY HENRY F. W. GANZ.

PRACTICAL HINTS ON PAINTING, COMPOSITION, LANDSCAPE, AND ETCHING

BY

HENRY F. W. GANZ

"Le dessin est la probité de l'art."

INGRES.

PHILADELPHIA
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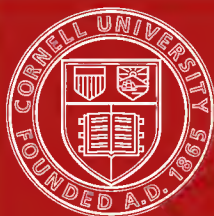
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TO
M. LÉONCE BÉNÉDITE
CURATOR OF THE LUXEMBOURG GALLERY
PARIS



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INTRODUCTORY NOTE

IN a practical treatise it is not possible to touch in any but the most superficial way on the theories and traditions of the "Old Masters." Yet it must be remembered that apart from the interest that is awakened in the student by the attention being drawn to fine works of art, a sense of Taste is thereby cultivated which will materially help his progress in learning painting, while the sight of beautiful statues and pictures of the great Masters will lead him to try and trace the methods by which 'Art' has been practised and perfected in former periods. One fact which will be observed is, that there is a scientific basis to the study of Art, and another that Art was taught on a classical tradition from master to pupil in the early days. The result was that certain "schools" were founded—schools in which the several artists chose in common either the same method of painting or a similar point of view in looking at a subject. In drawing the student's attention to the general facts of Art, he will be led to interest himself in the outlook which Englishmen have exhibited in Art, and to note the causes which have prevented a British School from existing in the sense that one has existed abroad.

We know that in Italy within the centuries that saw the growth and development of the great Renaissance, Dante and Giotto revived poetry and the art of design, Brunellesco built the dome of St. Maria del Fiore,

Ghilberti cast the gates of the Baptistery, and such great men in art as Leonardo da Vinci, Raphael Sanzio, and Michael Angelo Buonarrotti created their immortal works, and were followed by Titian, Tintoretto, and Paolo Veronese and others, themselves the outcome of a long-existing school. This period led to the artistic development of which the modern school of figure-designers have inherited the ideas and principles. Without tracing the eventual transition to later periods at all closely, it will suffice to say, Art eventually became conventionalised, and died out in Italy.

In France, without going farther back than Poussin, we see a school based on classical tradition; and this may still be said to exist. His influence followed later by that of Watteau, and then again by the classical talent of Ingres (to name only a few masters), was followed by J. F. Millet and Corot, showing genius under different manifestations. What has happened since?

Men acknowledging no school, such as Manet and Monet, appear, the former with unerring knowledge painting his picture 'direct from life,' and the latter his original "Impressions" of Nature; and another, Degas, building his 'new' view of the figure on classical lines. We also find in Flanders, Germany, Spain, and the Netherlands, schools of painting in which one man, achieving perfection, passes away and gives place to another; but in England, except for the efforts of Sir Joshua Reynolds (1723) and Hogarth, no one before their time ever tried to make or found one. It is true that a certain decided although superficial art movement was at times created; but it was by no means the result of native-born talent.

From the fifteenth century onwards a long succession of painters came at the invitation of various kings and nobles, and lived and worked here, but till the end of the eighteenth century no artists, except those mentioned, stood forth independent of foreign influence.

Among the succession of painters, such men figured as Hans Holbein, Zuccherò, Moro, Rubens, and Van Dyck. Rubens received the commission to decorate Charles the First's banqueting-hall at Whitehall, and obtained for this art-loving king the Raphael cartoons as an addition to his collection, which numbered four hundred and sixty pictures, amongst them being eighty-two from the Duke of Mantua's collection, including Mantegna's series of "The triumph of Julius Cæsar." But their visits, Sir Anthony Van Dyck's excepted, produced few pupils. Lely and Kneller followed, and it was left for Hogarth (1697) to break the spell.

Since then certain artists have worked in groups, *e.g.* the Norwich School, with such men as John Crome and his son, G. Vincent, J. S. Cotman, and James Stark; and later, the pre-Raphaelites, from 1848; but no national tradition was formed.

The development of the national character also had much to do with the matter. Like the nation itself, how many of our painters seem to stand alone! One consequence is, that the 'English groups' are full of originality of view. Each of our Masters seems to have made a study of Nature itself, as may be seen in the works of Hogarth (1697-1764), Sir Joshua Reynolds, Gainsborough, Raeburn, Wilson, Constable, Lawrence, Girtin, Cozens, and Turner (1775-1851), to name only a few.

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PRACTICAL HINTS ON PAINTING

METHOD IN PAINTING

ANY treatise which should profess to set forth a method or system of painting, and claim for it exclusive recognition, would misread all the teachings of modern artistic progress, and be misleading to the seekers after a proper understanding of the subject. I do not therefore claim on behalf of the present suggestions towards a method that they in any way are better than others which have been put to the practical test. At the present day old methods have given place to new, and the whole attitude of mind of the artist towards the subject is changed. There has been a loosening of all ties which in former days were supposed to bind the artist in the practice of his art. This is apparent, not only in the choice of subjects, but in their treatment. Much valuable time is lost by the student when he leaves his Academy, as—except for his materials and technique, which he has at his fingers' ends—he has no knowledge of the art of making pictures, or experience of the different arts and crafts that exist. This slender equipment is all he has with which to face the difficulties that meet him at the start of his life. The few theoretical text-books on Art and exploded theories of color are

not as useful to him as theoretical books are to the officer who leaves the Staff College, the doctor or the lawyer. I contend that something more than mere technique, important as this is, is necessary to him. He should know Art out and out, and the why and wherefore of all that has preceded him, so that he may go forth, as the hunter does, with a trusty weapon in his hand, and his mind free to develop the originality he has in him. What would one not give for a book on Art by say Whistler, whose axioms on etching are invaluable, and Rosetti, Hunt, or Millais, who one and all started their careers with a perfect technical equipment. If I may claim on behalf of my suggestions that they can be put to the practical test, or that they can in any way meet with the demands of the modern idea for an enlarged field for practical workers, I should be satisfied that I have achieved my purpose. I have found that these hints at the analysis of a Method of Art were of some use to my pupils, and I therefore venture to believe that they may be of interest to others, as well as to the young, in whose hands the future of Art lies. With such subjects around him as the superb beauty of English life, nature, and womanhood, the artist will be able to make 'Art' live, and contribute to a collection of pictures which the intelligent foreigner may find as interesting as the modern collection in the Luxembourg. The greater the interest taken in Art the better for the artist.

In view of the importance of figure-painting, and the value which the study of this branch of the Art has as an introduction to other fields, I have chosen it for a special description.

LESSON I

THE ESSENTIALS IN PAINTING

LET us consider what *painting* means.

Painting is the art of representing by pigments the *appearance* of reality; that is to say, it seeks to depict not so much *realism*, as the *impression* conveyed to the artist's eye.

Painting consists in the juxtaposition of certain *tones* to one another; thus, paint a round dab of yellow and it would not be an orange, but direct the attention to the effect of *light and shade* on the object, and means will be found of giving the "appearance" of an orange.

The next fact to be deduced, is that the essentials of painting may be divided into three things—

- I. DRAWING.
- II. LIGHT AND SHADE.
- III. COLOR.

Therefore to go straight on to our subject we begin with a demonstration on drawing, which is the foundation to painting.

I. DRAWING

Choose some simple *object by itself for study*; this will give an insight into the qualities of form. To save time use char-



coal, and the stump or chalk for shading. Take a sheet of *paper* and a stick of *charcoal* sharpened.

Establish either a real or imaginary perpendicular and horizontal line on your paper.

By this means, by holding up a ruler, whether upright or slanting, you will be able to compare the bearing of the parts of the figure in relation to these lines, and thus get your *proportions* correct.

With your charcoal, held by the thumb and first finger, indicate your model by slight points, and draw *lines*, connecting the dots, which will at once give you the *outline*.

Your aim should be to draw in pure outline in as direct a way as possible. The expressional power of line can suggest modelling in the blank spaces it encloses.

II. LIGHT AND SHADE

The object of first studies being simple effects of *light and shade*, you will now look at the model through half-closed eyes. (This enables you to observe breadth of effect, and causes details to disappear.)

Direct attention to the larger divisions of 'light and shade,' which you will now draw. They are—

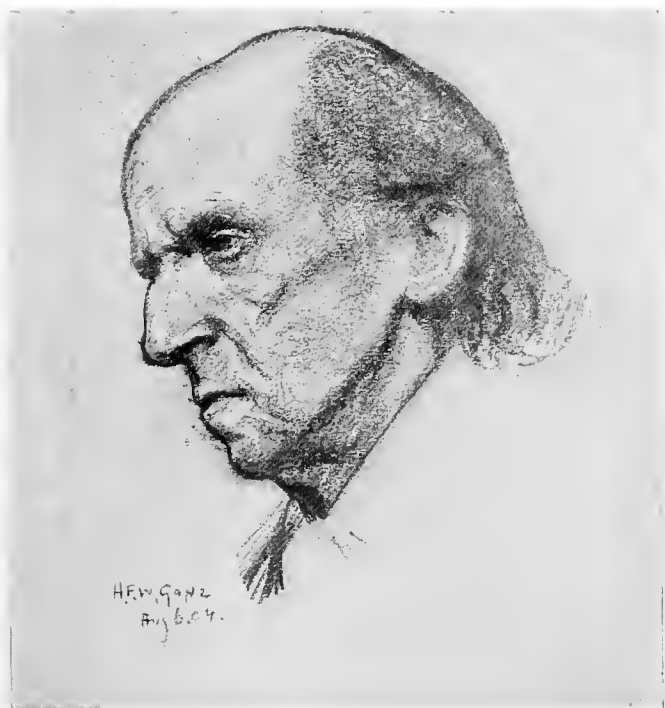
1. *Shadow.*
2. *Half-tint.*
3. *High light.*

1. The *Shadow* will give and explain the shape of the object.

2. The *Half-tint* modifies the shadow, and by joining with the light helps the modelling of the form.

3. The *High light* you easily obtain by leaving the white of your paper.

These will constitute the chief elements of your drawing.



STUDY OF A HEAD.
From a Chalk Drawing by H. F. W. GANZ.

Next observe where are the highest light and the strongest dark. These, when once put down, must never be exceeded.

In regard to the shadow, in order to give it depth, it should be put in with decided touches.

Having got so far, you now look at the model with open eyes, and add—

4. The *details* to your drawing, and then introduce more—

5. *Delicate gradations* between the shadow, the half-tint, and the high light.

6. The *reflected light* must also be shown; that is to say, the reflection of a neighbouring object in the shadow of your model. This reflected light may be added by rubbing the shadow with a *wash leather* or a little *bread*, and the modelling of the object should now be nearly complete.

7. The *cast shadow* can then be marked. This is the shadow that falls from the object you are drawing on to a neighbouring surface, either behind, on either side, or below.

It only remains to note the—

8. *Texture* of the model, for which purpose your touch must vary—according as you wish to give a representation of smooth plaster, rough cloth, flesh, silk, or stone.

The taste of the artist must suggest to what extent the drawing should be carried out.

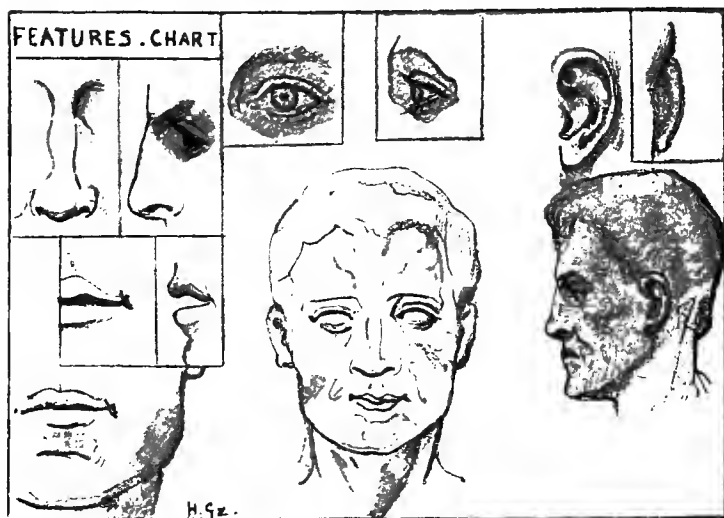
To acquire facility in your art it is highly important from the first to make life-size studies direct from the living model,

This gives insight into qualities of form.

Before attempting *color*, apply the foregoing hints, and be careful to observe the process explained in the next lesson.

Fixitive may be used to fix a drawing, and for safety should be sprayed on the back of the paper.

THE FEATURES OF THE FACE DESCRIBED



To explain how to *draw a head* we will take the different *features* first separately, *i.e.* the *nose*, *eyes*, *ears*, *mouth*, *chin*, *forehead*, etc., and find what lines they are composed of.

NOSE.—The *nose* (the *front view*) starts from the *eyebrows* with two lines, which curve inwards and then outwards over the bony part of the 'nasal bone' down to the *bridge*, under which they curve gently inwards. The cartilaginous part below follows, the lines curving slightly inwards and then outwards, circling down to the *point* where they meet. On either side are the *wings* (*alæ*), composed of curved lines, which run rather straighter along the *nostrils*, giving them in this view a rather small elliptical shape.

The *profile* of the *nose* consists of a short straight and then two slightly outward curved lines (as the case may be).

The *nostrils* are of a longer elliptical shape, and the top edge is rather straighter than the lower edge, being slightly hidden by the *wing* of the nose; under the nostril is a slightly rounded line from the *tip* of the nose to its base.

EYE.—From the *front view* the *eye* is composed of a globe—the *eyeball* with the *pupil* and *iris*.

The *iris* is a circle of various tinted colors, which slightly deepen towards the edge (outside). It surrounds the *pupil*, this being a circular black spot in the centre of the eye.

The *pupil* contracts in the light. Above the *eyelid* a curved form exists, along which the *eyebrow* grows, the hairs running transversely across it. The complete circle of the *pupil* is partly broken above and below by the *eyelids*.

The *top eyelid* (the more important one) is composed of two lines: the *upper one*—the top of the lid—is formed by a slightly raised curved line; and the *lower one* begins with an arched line near the nose, where it springs from the *corner* of the eye (*caruncula lachrymalis*), and then follows a long curved line. Under this line (as it were) the thickness of the skin gives the lower edge, from which the *eyelashes* spring, composed of slightly upward-curved hairs.

The *lower lid* consists of a more gently rounded line, with a fuller one below it (formed by a little fulness of skin), and a small upper *surface* (the thickness of the flesh) above this. The *eyelashes* curve slightly downwards.

In the *profile* the circular form of the *eyeball* and *pupil*, under the eyelids, is well brought out. The upper and lower lids having their outlines more in perspective, follow two short full-curved lines.

EAR.—The *ear* is a cartilaginous substance. In *profile* it consists of several rims (called the *helix* and *anti-tragus*), *inner* and *outer* gently curved surfaces. The

helix is composed of a circular curve, and then a longer curve running down to the *lobe* of the ear, and has two little thicknesses to it.

The *anti-helix* has a circular curve and then a longer curve running downwards, forming the one side of the *hollow*, making a nearly circular line. The *hollow* (*concha*) is bounded by a prominence called the *tragus* on the side near the cheek (a slightly rounded line).

The *anti-tragus*, in a circular line, also forms part of the lobe (lobule). The *lobule* consists of a line slightly curved downwards, and then circling upwards to the first line (the *helix*). The *joint* of the jaw is above the top of the *tragus*.

From the *back view* the ear forms a round and longer curved line, with a second circular surface inside it, the underneath of the *concha* joining it to the head.

MOUTH.—The *front view* of the mouth, taking the right half, is composed of four lines, one above and one below each lip. The *bow-shape*, formed on the upper edge of the *top lip*, consists of a line making a short curve upwards, followed by a rounded part, and then a gradual curve downwards to the corner of the mouth. The *lower line* of the *upper lip* is straighter than the previous one, and consists of a short curve up and a gentle curve to the corner.

The *upper line* of the *lower lip* runs in a full curve downwards at each end. The lower line has a slightly fuller curve upwards, and then goes upward again to the corner of the mouth. Above the mouth, a slight *hollow* between two *columnar* forms is found, and the *surface* then runs to either cheek. Below the mouth another *concave surface* is found, which then gets fuller and runs downwards from the top of the *chin*. In *profile* the mouth follows similar lines a little more in perspective.

CHIN.—The *chin* (from the front view) is formed



Michael Angelo's
GIULIANO.

Classical Profile.

by a long oval-shaped line, having the *jaw-bone* as its base, and then curving more or less in a long line upwards to the *angle* of the jaw, and from thence in a gradual curve towards the *ear*.

FOREHEAD (the front view).—The forehead is composed of a flattened circle. The line formed by the hair at the top of the head usually follows a straight line, and then runs inwards and outwards toward the ear.

The *hollows* of the *temple* and bones of the *cheek* complete the face.

The *profile* of the forehead is formed by a line consisting of a short curve and a longer curve.

The general appearance of the head *from the back* is globular. From the top the line is slightly curved, and then becomes more curved towards the ear. Below the ear, on meeting the *muscle* of the *neck*, a straight line is formed.

With a curve towards the base of the skull, the *nape* of the neck forms a fresh surface.

PROPORTIONS OF THE HEAD

The head is divided into four equal parts (in height).

1. From the crown of the head to the roots of the hair.

2. From the roots of the hair to the origin of the nose.

3. From the origin of the nose to the lower part of nose.

4. From the point of the nose to the lower part of the chin.

The length of neck is a fifth part—from the chin to the top of suprasternal *fossa*.

Width.—The line passing in *front* of the eyes is divided into five equal parts.

The eyes occupy the second and fourth, the nose the third.

The *eye* is divided into three parts, of which the middle one includes the pupil and iris; the opening of the eyes equals one of these parts.

On the middle of the third line, which divides the height of the face, the *nose* occupies a space equal to the breadth of the eye; the *nostrils* in profile equal in length a half length of the *nose*.

The breadth of the *mouth* is one eye and a half; the height of the upper lip is equal to one-eighth of its length, and the lower lip one-fifth.

The *ear* extends from the line of the eyes to that of the nose, and in profile is broader by half.

The width from one shoulder to the other at the line of the collar-bone is equal to twice the height of a head.



STUDY OF AN OLD EAST ANGLIAN FISHERMAN.
By H. F. W. GANZ.

LESSON II

DRAWING A HEAD FROM LIFE

PLACE your *model* in a decided light. Then stand the easel about three feet, at least, away.

The head is to be treated upon the principles indicated in the case of the ball. Carefully note the *proportions*. Hold a pencil at arm's length, measure off with the thumb a certain distance (*e.g.* the nose), then find how many times that distance will divide into the whole height and width of the model.

The same number of distances must then, proportionately, be marked in the horizontal and perpendicular lines of the drawing on the paper.

Having obtained the general size of the head, *draw* it in, building it up on the same basis that nature does, namely, the bony structure of the skull.

The *leading lines* (the direction) of the head having been studied at the same time, carry on the drawing further.

Get the *orbit* of the *eye* well shaded in, the *shadows* under the *nose* and under the *chin*. Add to these the *half-tones* under the *cheek-bones* and on the forehead.

Leave the paper for the *high lights*. Sketch in the *ears*, suggest the tone of the hair, and your head in form should be nearly complete. A slight blending of tints and a decided touch here and there will give it life.

In putting the effect of *light and shade*, the square character of the drawing should be maintained, and simplicity of effect obtained.

The student in carrying on his work will note whether in the light side of the head the outline appears

hard or light against the *background*; and also in the case of the shadow side, whether it is indistinct or soft.

It is a good plan in a shaded drawing to avoid making the outline look like a ridge to the head, for it is, after all, only a conventional line, and does not exist in reality. When there is a *background* to the head, in order to give rotundity and form in the modelling, it is often necessary to draw down one side of the head and up the other; it will obviate the effect of an outline looking like a tracing.

When finished, a drawing can be fixed by spraying it from the reverse side with *fixitive*.

It will be found that no *angle* or *convex line* exists in the body, and that every apparent angle is made up of minute concave lines.

It will also be noted that by far the most important lines in any drawing are the first four, which indicate the general shape, and that the elimination of unnecessary lines and shades helps to the simplification of the effect produced.

Where forms appear difficult to understand, it is useful to reduce them to geometrical shapes.

In general, the principal outlines are more modified and softer in a *woman's* head than in a man's. The shapes are more ovoid in character in the brow and jaw. The *features* are slightly smaller. The *brow* has the appearance of being wider. It is less arched, and the *forehead* lower than a man's, which is "square" in shape. The *cheek-bones* are more prominent and rounder. Another noticeable point is the line down part of the *cheek*, caused by the formation of the hair.

In fact, the general slope of the *forehead* is slightly more accentuated and less curved than in man, and the top of the head farther back. The jaw angle is less pronounced, the chin more pointed, and the lips fuller. The parting of the hair, again, which grows lower on to the forehead, is more marked, and very characteristic of

the sex. The *neck* will be smaller and the shoulders more rounded. A more delicate or paler coloring will also be noted. In *man* the head is generally "squarer" in character, the forehead higher, and the mouth flatter and thinner.

Drawings can be done in charcoal, pen and ink, pencil, colored chalks, or with 'black and white' oil colors, etc.

As drawing is the foundation of painting, the student should arrive at a certain correctness and facility in execution before going on to painting or color.

A NOTE ON THE HISTORY OF DRAWING

TRACING the history of drawing, we find that the earlier efforts in delineation were chiefly in *outline* and *flat washes of color*, with no effect. The study of appearances came later. Two survivals of primitive art have come down to us, *Coats of Arms* and *Trade Marks*. As a kind of writing for the ignorant or primitive man, the first efforts of drawing were simple. The *simple line* was studied in Assyrian work and on the Greek vases, form being simplified and amplified. Briefly following the history of the development of humanity, we have Holbein's work, remarkable for skill in line; a realist, he used lines of great variety of curvature. Renaissance art, with the study of anatomy, brought a more scientific and more ideal view. *Chiaroscuro* was introduced to get the *modelling of the form*. Taking Michael Angelo for example, we find that he economised not by rejection of any portion of his art, but by summarising the whole, more or less, with reference to the time he employed on the work and its size. He considered *modelling* as much part of drawing as the outline itself, and gave both in a

rougher way in a sketch, while in a more highly finished study he made a more careful outline. The principal characteristics in the history of drawing are shown in the difference of the opposite styles, the *Severe* and the *Picturesque*. A style which was simple in Greece and in the purists of the Middle Ages, became elaborate in the great men of the Renaissance. The greatest development of the picturesque spirit, which is tolerant and observant, occurred in Holland in the seventeenth century. The Severe spirit is an academic protest against the Picturesque. The strongest reaction against the picturesque is to be found in the works of the French classicists, originated by Gérôme, who went back to the pure Greek line and flat spaces. The most perfect picturesque in modern drawing is seen in the French etchers and lithographic draughtsmen.



STUDY OF A HEAD, PAINTED
IN FOUR COLOURS.
(DIRECT METHOD.)

BY HENRY F. W. GANZ.

LESSON III

III. 'COLOR'—MATERIALS—FIRST ATTEMPT IN OIL

BEFORE undertaking the use of paint, the student should, by practice, have acquired some skill in drawing, with the ability to grasp the shapes and characteristics of the object he is studying.

Thus equipped, he will more readily appreciate the principles of effect in the employment of *color*, which will now occupy his attention.

With regard to the necessary materials for this purpose and their handling, he will require a *canvas*, with not too smooth a surface (single primed), about twenty inches by sixteen inches (or larger), and a fair-sized *palette*. Having drawn in the head and fixed it, as suggested in the earlier studies, color may then be used.

In his first attempts, *e.g.* the study of a head, he should use only a few *colors*. Such as *ivory black*, *burnt sienna*, *flake white*, and *cobalt*, and with these get a general idea of what the materials are capable (see illustration).

He must have large *flat hog-hair brushes* of sizes varying from $\frac{1}{4}$ inch to 1 inch, two fine *sables*, two or three *round hog-hair brushes*, and some *cow-hair brushes* for finishing-off touches.

He will require a *dipper*, to hold equal proportions of *turpentine* (spirit of turpentine discolors paint less) and *linseed oil*.

The brushes and palette must be cleaned every day. The brushes being washed in turpentine, or with soft soap and warm water, then well rinsed and dried with a cloth. The palette should be scraped with a *palette-knife*.

The palette-knife, of a 'trowel' shape, may be used to lay on or scrape off paint on the canvas.

It will be found that Nature only produces eight colors: black, white, blue, yellow, green, brown, purple, and red. Some of these, in painting, are mixed together and modified in different tints.

In painting, it will be noticed that—

Black is most beautiful in the shades ;

Red, yellow, and white in the light ; and

Blue and green in the half-tints.

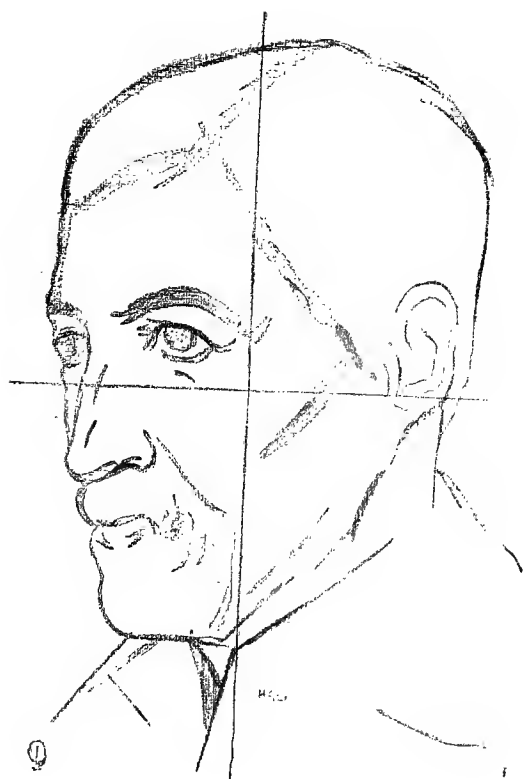
The place where the local color (general color) of an object comes in the effect, is as an intermediate link uniting the shade and light, or rather it is nearer to the shadow than the light. In painting, color appears to us only in relation to the colors that surround it. The grey sky appears dark against a light key, and the blue sky, which is blue and warm, becomes blue not from the pigment itself, but by contrast with warm tones.

It will be observed that Nature often breaks and subdues color by the penetration of light. This must be reproduced if it is desired to imitate the real appearance of an object in relation to its surroundings.

Further, it will be noted that the color of every object participates in the color of the light it is in, all effect being produced by reflection and refraction.

In flesh painting, the color is seen more in the lighter parts than in the half-tints or shadows ; these are a slight variation of tones of 'grey.'

It will be found that the tint in the forehead is slightly yellow, in the cheek slightly red, and in the lower part of the face grey-green.



LESSON IV

PAINTING A HEAD FROM LIFE

FIRST place the model in a simple light, that does not vary too much during the day.

This can best be obtained from a north window.

The painter should stand at his easel with his back to the light, and occasionally step back to get a general view. He should have the sitter's eye on a line with his own.

If the easel is placed with the left side to the light, the cast-shadow of the brush will not be visible on the canvas.

A good color for the walls is a warm neutral grey.

Draw in on the canvas a life-size head as a study in charcoal.

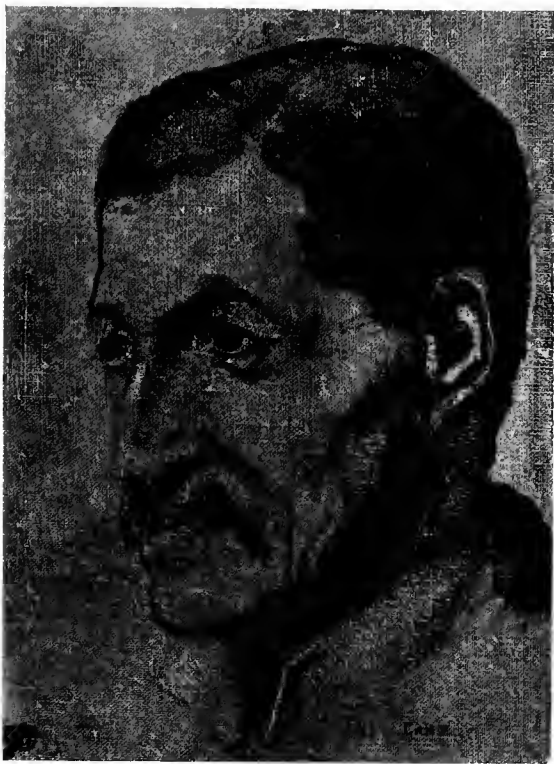
Then having carried the drawing so far that the proportion and shape of the model is put in, slightly flick off a little of the dust with a mahl-stick (as in beating a drum), to prevent the dust mixing with the color; and fix it.

LESSON V

THE 'RUB IN'

TAKE some such simple color as burnt umber (or Vandyck brown and, vermilion) and make a sort of monochrome drawing. Dip your sable in the oil and turpentine, then into the color, and paint in the outlines. Mass the shadows, then allow the sketch to dry.

A foundation of the form will thus have been obtained, and the student will be able to study the color freely in the next stage of the painting.



STUDY OF A HEAD—"THE RUB IN."

LESSON VI

THE UNDER-PAINTING—TWO METHODS OF
PROCEDURE

To continue the painting, lay the palette with colors in the following order:—

Ultramarine blue.	Gold ochre.
Ivory black.	Yellow ochre.
Vandyck brown.	Naples yellow.
Crimson or Rose madder.	Flake white.
Venetian red.	Vermilion.
Burnt sienna.	Cobalt.

There are two modes of painting which I will describe. One is the *direct* method, employed by Franz Hals, Velasquez, and Manet, putting down the color at once; the other, and more elaborate method, is that of laying in the drawing with the masses of light and shade in monochrome, followed by thin painting and glazes in color. This is the method of Titian and Rubens.

Of the two methods of painting a head, I will take first the *direct* and then the *indirect* process.

According to the former, the student will start with a *dark color* as a *background* to the head, then mixing two or three gradations of color, and using large brushes, he will block in the face in big touches to suggest a rough-hewn *effect*. He will try and match the tints, putting them in in their proper places, and painting with solid touches. Different parts of the palette should be used for the mixing of the tints, and a variety of brushes. The right amount of *light* and *half-shades* being obtained, he will put in a proper *tone* for the *hair*, and continue by

adding touches, which will join this mosaic and give the modelling.

Colors to be used.—In both cases he will take—

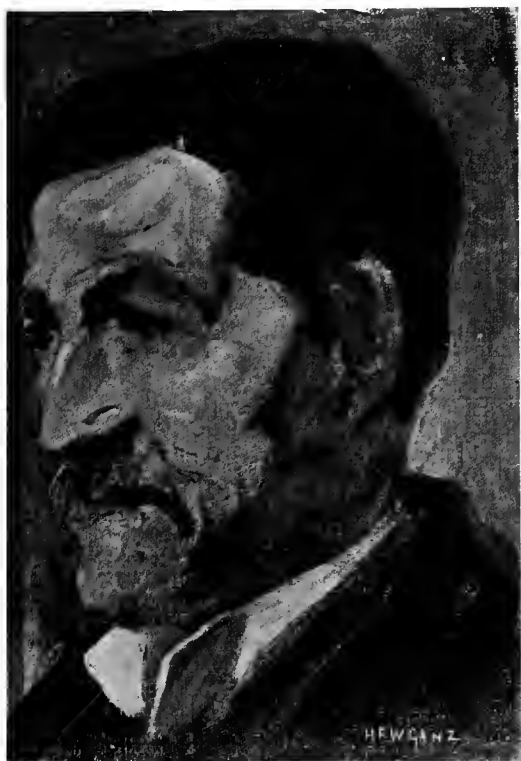
For the *shadow*, Vandyck brown, burnt sienna, and Venetian red in different tones.

For the *half-tint*, vermilion red and cobalt, mixed in different degrees.

For the *light*, various tones of vermilion, ochre, and white.

For the *highest light*, naples yellow, white, and a little vermilion; and—

For the *greys*, cobalt and white.



STUDY OF A HEAD—"THE UNDERPAINTING"
(INDIRECT METHOD).

LESSON VII

A METHOD OF HOW TO PAINT A HEAD—
PROGRESSION

IN the longer (or easier) method, he will begin with what is called an *under-painting* to the head, to be followed later by the *over-painting*.

A slightly tinted effect (in parts with yellow ochre, vermilion, and cobalt), will be prepared on a ground for further over-painting.

The *shadows* will be rubbed in, the general tone being kept.

The *chief light* should be well marked.

Then the *silver-grey* tones of the flesh will be noticed, and painted in in a mixture of vermilion, cobalt, and white, which will be found to be very near these tones.

The *half-darks* having been painted over the shadows, the study of the *background* follows. This must be put in in the right tone in relation to the head, and the canvas filled in completely to the edges.

Compare the shadows and half-darks on the head with any neighbouring darks, and alter them where necessary.

It may be noted if the *outline* ought to be firmer or not.

A comparison of the tone-relations may suggest that the values of the different lights should be accentuated or softened.

Next complete with a dry brush, to give modelling to the parts that want it, by dragging one tint into the other.

Note whether the *outline* on the *shadow side* is lost

enough as a line, in contrast to the firmer line that is on the light side. Then leave the painting to dry.

It will be found that it is impossible to work on paint unless it be either quite wet or quite dry.

It becomes sticky in the intermediate stages.

It will help a canvas to dry if it is placed not too near a fire, and a less proportion of oil to turpentine will hasten dessication. Damp and water are both injurious to a painting.

LESSON VIII

THE CONTINUATION AND FINISHING OF PAINTING
A STUDY

THE following day, in order to carry this *under-painting* further, a little poppy (or other slow-drying) oil may be *rubbed over* the paint, and a little color added here and there to modify the first painting.

For instance, in the case of the *shadow* that was put in at first, it may be rather too dark, and a mixture of a little cobalt and yellow, slightly superimposed, will lighten it. Later, a little vermilion can be introduced.

And the *light* may be too high, in which case a little more color of the right shade can be *glazed* over it. (Glazing consists in rubbing a little semi-opaque color thinly over another, as distinct from solid painting.)

The larger *details* can be added with as broad a brush as possible, and the *breadth* and simplicity of effect must be kept, while getting the general tone and color of the model.

The *effect* of the sketch should be the one that you have observed while taking a general look at the model.

The highest light on the *forehead* will be the key for observing the relation of tones.

The great difficulties in painting flesh come from the changing color and the differences of tint and texture.

Outlines often are soft and lost in places.

The greatest care must be taken in blending one tint into another, so as to avoid hard edges.

It will be found that flesh is made up chiefly of grey in tones of slight variation, some parts of the skin being greener, some yellower, and others redder.

Two useful accessory colors will be found in emerald oxide of chromium and cadmium.

A canvas over which some color thinned out with turpentine has been rubbed, makes an effective ground upon which to start. Or again, there is the brown canvas, or one prepared with red paint, on which whiting is put, and rubbed off in the places where the shadows are to be painted. Spirits of petroleum, to give a matt effect, are also used for painting. Turpentine may be used to take the gloss of oil away, by wiping over a part of the painting—before repainting. But turpentine must not be used alone as a medium, for it will wash off again in the varnishing. Finally, any thickness of pigment can be scraped with a razor.

LESSON IX

‘VALUE’

THERE are several terms used in painting which have two or more meanings. *Value* (often spoken of as *tone*) is one of these.

It may mean either—

1. The different *intensities* or shades of a tone, not color as such ; or—
2. The *effect* of an object against its background, *i.e.* whether it tells as a light or dark mass.

Thus the various tints found in the representation of a white cup on a white cloth against a white wall will express the different *values* (tints) of white, or the effect of the cup and cloth against the background will illustrate the *second meaning*.

In a portrait, the dress may be black silk, relieved by black velvet, lace, etc., against a dark or black background, making various intensities of the scheme of values of black.

Colors are the different *tones*, as *red, green, blue, yellow* ; but these colors can be more or less deep, that is *value*.

Take, for instance, the *reds*. You get by values several varieties of reds: red absolute, lake red, yellow red, violet red, rose red, etc., and you can have the same variety of values in the other primitive tones and in neutral tones (colors).

Whistler often introduced schemes of ‘grey’ against ‘grey,’ and ‘white’ against ‘white,’ etc., in different values in his pictures.

In painting, the observation of values is now so important that they must be studied by themselves, and quite apart from any principles of drawing.

A further illustration of the meaning of values will be obtained by studying the effect of color under certain lights.

In making, say, a study of flowers, begin by putting them in in a gradation of neutral tints, preserving the values; then add a dash of color here and there. The appearance of light playing on the color will thus be obtained.

Everywhere try and paint not what you believe you ought to see, but only what is there before you.

Nature is never extravagant; she will not stop to leave out shadows, and uses her effects sparingly.

In the event of the general effect in the painting being too dark, you can use that effect as a keynote, and decide to paint your study in a lower tone.

This often gives a finer harmony, and even in "out-of-door" work sometimes obtains an effect of more sunlight in the picture.

Out-of-doors, in certain effects, a figure in white may tell light or dark in the foreground, and as a 'value' tell dark against the sky-line. Pictorially, it follows that an object only exists in relation to its surroundings.

As a *base*, the three notes to strike seem to be *grey* or *yellow* for out-of-doors, *red* for indoors.

A *blue* figure will tend to harmonise the tone of a *green* landscape, and *red* will brighten a dull one.

Bearing these principles in mind, the student will find that it is more often the *way one looks* at Nature, than the way in which the paint is laid on, that in the end makes the picture.

Harmony of colors comes from the accord of contraries. Often in Nature imperceptible harmonies are produced by the nearness of one colour to another, as *red* to *blue* (giving *violet*); but these will not appear in painting, unless deliberately put down as separate tones.

The natural harmonies of different colors against their contraries must be modified in a picture, for a *red*

is never complete without *green* near it, or *orange* without *blue* ; these will be softened by *neutral* tones, *white*, *black*, and *grey*. In the case of opaque bodies of color, *white* will be found most capable of receiving and participating in all sorts of colors, while black does not reflect color at all.

Scientific explanations of 'color' state that it is a special sensation made on the retina of the eye by rays of light of definite wave lengths. The different 'colors' producing various numbers of waves, red ones being slower than violet, and so on. The spectrum gives the '*simple*' colors of dissolved light as red, orange, yellow, green, blue, and violet, but white and purple do not exist in the spectrum—they are mixtures of two simple colors ('*complementary*'). When white light falls on a surface, this may absorb all the rays except the red ones. If the red rays are alone reflected, the object will be red ; and so on with the other colors.

These facts may account for the natural taste there is for harmony by contrast in painting, and for the appearance of a '*complementary*' color showing itself in the tint of the shadows of objects in certain effects of light.

LESSON X

GENERAL HINTS ON PORTRAIT-PAINTING

UNLIKE that necessary for sculpture, where a top *light* in the studio is alone essential, the light required for portrait-painting includes the use of a *side-window*.

By this means the light will not fall too vertically and be too hard, but improve the effect on the face.

While keeping the *breadth of effect*, to obtain the *likeness* in painting a head, the indication of the *shadow* under the brow and of the various *planes* of the face is more effectual than the attention to smaller details, such as dotting the lights in the *eye* and imitating the *eye-brows*. A *tone* will best suggest their character. The details can be added later.

In order to get the *resemblance* and *individuality* of the sitter it will be advisable to do a careful study of the drawing of the *mouth* and lower part of the face, which is of more importance than even the eyes or nose.

A number of *brushes* should be kept for the varieties of tint and tone. It is useful, in order to sustain the form in painting a face, to put an outline of cobalt and venetian red, which, having been introduced, can always be painted over with the color required. It will be found that in painting the *cheek*, softness is not the only beauty to be aimed at—bad oranges are soft. A cheek is soft, but also firm.

The *tint* of the cheek does not make the head, but the *tone* of the *orbit* for the eye to live in will do so.

In painting the *costume*, put in a general color, on which the shadow and high light can be painted over.

It is often necessary to keep fine gradations in a

background, so as to avoid one that is entirely black or very dark.

To relieve a clear complexion, you want only delicate or subtly treated tones, in contrast to the effect that nearly any color has on a dark skin.

If a painting has not turned out well, instead of scraping it out, it is often a good plan to let it dry, and then rub some dull colour over it and paint afresh.

Another plan is to blot the colour off with a piece of newspaper.

Accuracy of feature alone does not always give resemblance, for people are known to their friends not only by their essential characteristics, but also by their expression; this will best be brought out by conversing with the sitter, one of the chief arts of the portrait painter.

VARIOUS PAINTERS' METHODS

It may be of interest to note certain points in the methods and techniques that different artists have used. For instance, L. da Vinci worked by light and shade; and Velasquez, with complete freedom from artifice, by the arrangement of light and shade, got, perhaps, more true and simple interior lighting than any one.

Rembrandt worked for concentration of light,—a mass of light surrounded by shadow,—the exact opposite to Claude and Turner, with their small spaces of shadow and large expanses of light.

Rembrandt and Velasquez worked on the principle of 'values,' a method which Carolus Duran and John S. Sargent also follow.

Veronese, Rubens, and Sir Joshua Reynolds painted chiefly over a prepared under-painting of white and some brown tint, over which they glazed their colour. G. F. Watts often used a way of painting modified on this plan. Rossetti started his painting in vermilion and French blue, Burne-Jones in blue, and F. Madox Brown in violet. Other artists, like Gainsborough, work chiefly from impression and feeling. Sir John Millais used to place his canvas side to side with the sitter, and then try to match the colour, comparing the effect as seen at a distance. Lenbach worked chiefly in slight glazes over a fine drawing, and thinly re-drew the features over this with a thin sable brush.

QUALITY IN PAINTING

THE 'quality' of the handling of paint is seldom explained, and, it is most difficult of explanation, though without it few pictures can rank in the highest class. The 'laying on' of the paint in flat strokes of the brush sometimes gives it; or again, attention to the 'texture' of the object represented; while a toning down of the pigment with brilliant touches superimposed may suggest 'quality.'

Of the great men of the past, Giorgione, Tintoretto, Velasquez, Ribera, Franz Hals, Tiepolo, and Chardin will at once suggest themselves as having a peculiar mastery of this technical accomplishment. Rubens, Rembrandt, Van Dyck, and many of the smaller Dutch School, and, in some of his works, Reynolds, and also Whistler, give it. If it is allowable to mention the names of living men, E. Degas and J. S. Sargent are certainly among the first in the art of quality-painting, while Watts and Burne-Jones never had this quality of paint. How far it differs in many artists' work may be seen by any one who looks at the well-known copy of Raphael's figure of the young Christ painted by Gérôme, in the gallery of the Ecole des Beaux Arts in Paris. Retaining all the sentiment of the original, the fine drawing is reproduced again with a more subtle technique by the later artist. This copy is one of several done by French students on their travels after completing their course of instruction in Paris.

It will be noticed that all artists do not conceal their means. The strokes of the brush of Rembrandt and Hals are decided, distinct, and frank.

MODERN PROGRESS

As the pupil advances in the practice of his art he will be able to modify his method as required, and will be quite justified in doing so.

One sees upon an examination of the works of modern artists perhaps a far greater difference in the handling of the paint than existed, say, amongst such masters as Velasquez, Rubens, Van Dyck, Rembrandt.

Thus observe the contrasts in the handling of paint of our Watts and Leighton. The one paints roughly and the other smoothly, and they are farther apart than even Velasquez or Van Dyck.

The principles of art and laws of nature being immutable, it is so far easy to theorise on them, but in practice individual qualities in the handling of the paint, etc., produce many unconscious effects, that the artists themselves wot not of.

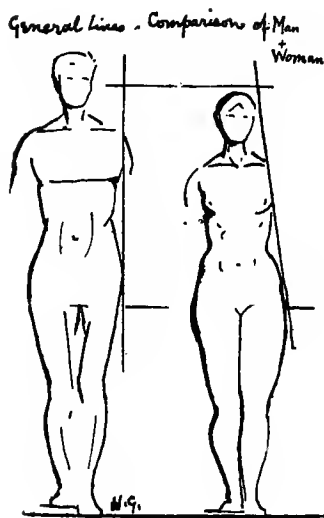
The differences which distinguish the broken little dots and dabs of the painter of "out-of-doors" from the solid effects of value aimed at by the brush of the portrait-painter, make it difficult to point out the many practical lessons which the student may derive from looking round a modern exhibition.

However, there is less difference really between many classical works and more complex modern 'art' than between ancient and modern 'science.' For instance, there are two kinds of realism—surface and expressive, consistent with light, as in Rembrandt, or combined, as in Holbein and Moroni. J. F. Millet got the type and action, and Bastien-Lepage gets individuality of character. Perfection being arrived at on certain lines, it seems to die and be revived by a new genius.

The truth is, that at one time 'art' either appears less obvious, or at another, with its 'composition' or 'light and shade,' more obvious.

It seems impossible to produce works of the old sort again, for "progress" in art means a change in the kind of matter selected for art, and a consequent change in technique and handling.

The sincerity and earnestness of the artist will guide him in the selection of his subject. He must express his own life in terms of beauty, and he will find that the secret of his work is to build as Nature does (getting the bold and fine outlines she does), and then allowing his own individuality full play to produce expression.



LESSON IN DRAWING A STUDY OF A FIGURE FROM LIFE

IN starting a study mark your points at the exact top and bottom of the paper, so that the figure may completely fill it. (This will train the student to draw figures to fit certain spaces.)

Get the proportions and carry out the drawing as in previous studies, noting well the 'direction' of the body on the pelvis, the various undulations and curves of the torso, etc.

The 'square' character of the drawing must be maintained, and particular attention should be paid to the study of the bones, the joints, muscles, and their overlappings, a simple effect being kept.

It must be noted whether the outline appears 'hard' or 'light' against the background in the 'light,' or

whether, as is the case in the shadow, it is indistinct and soft.

Avoid making the outline look like an edge to the figure. In the case of a background it will vary materially, and is only a 'conventional' line for use in drawing.

To help to give rotundity and form to the model, it is often necessary to draw down the one side of the figure and up the other; the one line will give the drawing (taking the head, for example) of the face on the one side, and of the background on the other.

In carrying out the drawing the same principles of effect will hold as in the other studies, namely, light and shade, value (the different intensities of a shade), etc.

It will be found that no angle or convex line exists, but that every apparent angle is made up of minute concave lines.

It will also be noted that the first four lines in any drawing are the most important, and are the leading lines for character and form, and that where forms appear difficult to understand, it is useful to reduce them to geometrical shapes.

LESSON IN, AND THE PROGRESSION OF,
PAINTING A FIGURE FROM LIFE

USE the palette of colors already mentioned, and have some large and small brushes, etc.

Having drawn in in charcoal, which you slightly dust off, and then fix, paint a sort of "monochrome" drawing, as before, and allow it to dry.

Slightly tint in parts with yellow ochre, vermilion, and cobalt, as a 'preparation' of the ground for the future painting. Rub in the shadow and proceed, keeping the general tone. The chief light must be well marked. Notice and paint the light, silver-grey tones of the flesh, using vermilion, cobalt, and white in different degrees, and proceed in the painting.

Paint the half-darks into and over the tones of the shadow.

Then study the background, which must be painted the right tone in relation to the figure.

Compare the shadows and darks on the figure with any neighbouring darks, and continue painting.

It may then be necessary to make the outline firmer; to compare one part with another in their relation of value, etc.; to accentuate or soften values of different lights, in effect; to soften off the modelling, etc.

Another thing to note is that the outline on the shadow side should be kept soft, in contrast to the firmer line on the light side.

It will be found that flesh color consists chiefly of grey in tones of slight variation, some parts being greener and others redder, etc.

There are great difficulties in painting flesh, not only from the change of the color, but also from the differences of tint and texture, the skin being partly transparent and occasionally rough, or covered with wrinkles. Great care must be used in the blending of one tint into another, so that the modelling may be delicate.

LESSON XI

USE OF MATERIALS IN OIL-PAINTING

GROUND.—The ground of the canvas may be prepared with pure white lead mixed with linseed or poppy-oil and a little turpentine. (This may also be applied to old canvases.)

PANELS.—Mahogany, poplar, chestnut, sycamore, and cedar-wood panels are used.

CARDBOARD.—Grey cardboard prepared with size, or strawboards.

OILS.—For vehicles—linseed oil and poppy oil may be mixed without injury to colors.

VARNISHES. — Never use the quick-drying ones. The following are safe: copal, yellow amber, turpentine of venice, pounce, mastic, camphor, animi, elemi, and balm of copaiba, and Soehnée frères varnish.

The *dessication*, or drying of colors, is produced by the solidification of the oils; these last absorb oxygen from the air, and become heavier and more bulky.

Dessication is always variable and uncertain in rapidity, but open air and heat greatly help it.

In the process it is at first slow, but quickens as soon as the oil solidifies. When the painting is dry there is no longer any absorption of oxygen, and the colors petrify and shrink. *Siccatif de Haarlem* is sometimes used. In blacks, browns, and lakes cracks may appear.

TURPENTINE.—By the use of turpentine the oil in the color is destroyed.

To ungrease a canvas, turpentine; water and pumice powder can be used, and then a little oil rubbed over it. It is better for finishing to use thin glazes of mars

brown, mars yellow, cadmium, ultramarine, green oxide of chromium, cobalt violet, and the ochres in place of black, burnt sienna, or bitumen used thickly. This last color had perhaps better not be used at all.

With *flake-white* it is safe to mix blue, violet, and pale madder.

With *white* it is safe to mix the following colors : mars, Venetian, and Indian reds, carmine and rose madders, burnt sienna, mars orange, cadmium, and yellow ochre, Italian earth, green oxide of chromium, cobalt and French blues, cobalt and mars violet, brown ochre and mars brown, and ivory and vine black. Dark madder discolours when used with white. Vermilion blackens.

Naples yellow must not be used with colors containing iron. The chromes are not permanent, and are damaging to Prussian blue. Emerald green is dangerous to many other pigments. Indigo is likely to be destroyed by colors containing iron or lead.

COLORS WITH SYNONOMOUS NAMES.—Brown ochre or Roman ochre, charcoal grey or blue-black, emerald oxide of chromium or viridian, cobalt red or cobalt violet, mars red or Indian red, mars orange or Venetian red, mars yellow or Roman ochre, Veronese green or viridian.

Unstretched canvas, with oil-paper placed over it, may be rolled face outwards.

INGREDIENTS OF PIGMENTS

REDS	{	Carmine . . .	Cochineal insect (not durable).
		Red lead . . .	Massicot (oxide of lead).
		Indian red . . .	Ground hæmatite ore (Bengal).
		Vermilion . . .	Sulphide of mercury—cinnabar (China).
		Light red . . .	Burnt ochre.
ORANGE	{	Venetian red . . .	Heating sulphate of iron (waste product from tin and copper works).
		Lakes and madders . . .	Precipitated colored vegetable tinctures by alum and carbonate of potash.
		Chrome orange . . .	Chromate of lead (not permanent).
		Mars orange . . .	Artificial ochre.
		Lemon yellow . . .	Chromate of barium.
YELLOWS	{	Chrome yellow . . .	Chromate of lead product (not permanent).
		Naples yellow . . .	Salt of lead and antimony.
		Mars yellow . . .	Hydrated oxide of iron and oxide of aluminium.
		Cadmium yellow . . .	Sulphide of cadmium.
		Yellow ochre . . .	Natural clay coloured by oxide of iron.
GREENS	{	Raw sienna . . .	Clay stained by oxide of iron.
		Aureolin . . .	Nitrate of cobalt and potassium.
		Verdigris . . .	Acetate of copper.
		Emerald green . . .	Verdigris mixed with solution of arsenic acid (not permanent).
		Emerald oxide of chromium . . .	Oxide chromium (very durable).
BLUES	{	Terre verte . . .	Natural coloured clay.
		Chrome green . . .	Chromate of lead product and blue.
		Prussian blue . . .	Ferro-cyanide of potassium mixed with salt of iron (not permanent).
		Indigo . . .	Certain plants (Asia and America) steeped in water and fermented.
		Ultramarine . . .	<i>Lapis Lazuli</i> (French) from mixture, soda silica, alum, sulphur.
VIOLET	{	Cobalt blue . . .	Oxide of cobalt.
		Cerulean blue . . .	Oxide of cobalt and tin oxide.
		Cobalt violet . . .	From the metal cobalt.
		Raw umber . . .	A clay coloured by oxide of iron (Turkey).
		Mars brown . . .	Artificial ochre.
BROWNS	{	Vandyck brown . . .	Earthy mineral pigment.
		Roman ochre . . .	Calcined earth.
		Asphaltum . . .	Bitumen (pitch). Never dries.
		Sepia . . .	From cuttle-fish.
		Ivory black . . .	Waste ivory and grinding.
BLACKS	{	Bone black . . .	Vine twigs charred.
		Lamp black . . .	Soot by burning oil, rosin, etc.
		Flake white . . .	Carbonate of lead and lead hydrate.
		Zinc white . . .	Oxide of zinc.

LESSON XII

'SOLID-OIL' COLORS

A NEW invention of materials, that of *solid oil colors*, by M. Raffaëlli, has lately appeared, and no treatise on oil painting would be complete without mentioning it. This artist, discarding the usual brushes, palette, and vehicles, offers the painter the colors ready mixed in different shades, in the form of what may be called "solid pastels." The various colors are numbered. I have found that with these a method may be used in painting and drawing a head similar to what I have already amplified in my lessons, taking Nos. 28, 27, 70, 200, and 124 for flesh. Sketch in with a sort of 'neutral' color, a general outline being indicated. Certain tones, say for the modelling of the head, can at once be put down. In this manner one uses a sort of blue-grey for the shadows of the eyes. A sort of red-grey for the shadows of the nose, similar tints for the shadow of the chin, and yellow-grey tones for the forehead, getting the various tones on the same principle described in the lessons on painting a head. The colors may then be gently rubbed with the finger and then blended together, or the brush and turpentine, etc., may be used. In working in this process, the artist's knowledge of the principles of 'art,' such as effect, value, and drawing, will come as much to the fore as in the other methods.

Whether he uses oil or water color, or other medium, the personality of the artist will appear in the choice of his subject and manner of his treatment.

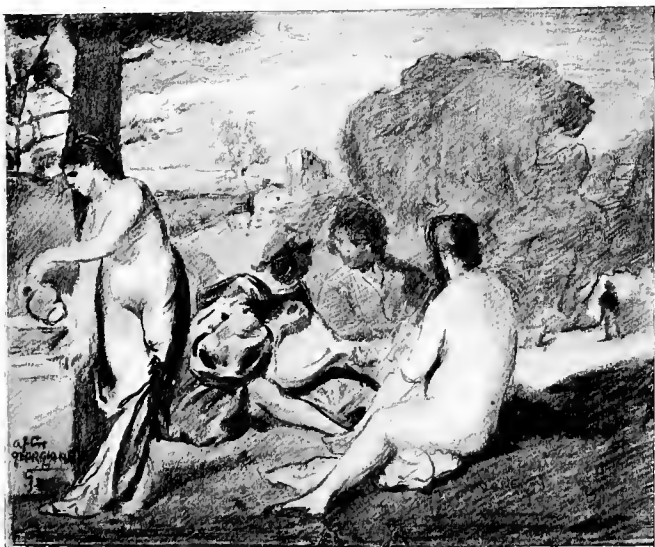


STUDY IN 'SOLID-OIL' COLORS.

COMPOSITION—THE LAWS GOVERNING
COMPOSITION EXPLAINED AND ANALYSED

How far the elements of composition enter into a modern picture, and to what extent they are tolerated nowadays, must be a matter of taste. Certain it is that in the case of the four greatest masters whom art has known — Michael Angelo, Veronese, Tintoretto, and Rubens, we find that although the passionate quality of their work lies in its conception, the execution is elaborately calculated.

Let us see how far certain rules, formerly deemed to be essential to the construction of every design, still hold good in a picture, and which do not. *Concen-*



CONCERT CHAMPÊTRE.

Sketch from GIORGIONE. (*The Louvre.*)

tration of effect on the 'subject' of the composition comes first. It is to be found in them all, and is particularly important in art. It will at once be apparent that *line* by itself cannot entirely constitute composition, for effect of *light and shade, color, and perspective* also enter into the subject. This is seen in Leonardo da Vinci's fresco of "The Last Supper." In the compositions of the earlier landscape painters it appears that no effect of air or *atmosphere* was sought for. A certain artificial *contrast* of a strong dark shadow in the foreground was used in many of their paintings to accentuate light. Albert Cuyp is a good example. This could hardly be tolerated nowadays, for art has advanced too far. Such simplicity would not be accepted as it was in the days of Poussin and Claude. Another fixed rule was what was called *angular composition*; the idea being that by drawing a *diagonal line* from one corner of the picture to the other, one could cover the lower half with dark and the upper with a light tone, and allow a small portion of each to be admitted into the other, to bring together the strongest contrasts of light and dark. This effect seems a little too marked, for there is no reason why there should not be numerous lights of various shapes and different values of dark scattered about the picture according to taste. An obvious and useful rule is that of obtaining an effect by concentration of a mass of *light* surrounded by *dark*; or the reverse, a dark part or dark spots surrounded with light. Another rule, which still holds good, is that in every subject there must be *balance*. Again, there are certain parts of a picture that take the *light*; some that are *dark against light*; those that are *light against dark*; and others that are more lost or divided in effect. All this helps to give variety.

It is a good thing to *repeat* lines and forms which play round a figure through a part or the whole of a picture, and either in harmony or contrast to a figure. Raphael frequently followed this rule of re-

peating *lines* and *forms* to emphasise his subject, a large form being used for the principal figure, and smaller ones filling up the other parts of the design; and he occasionally treated his background like a piece of tapestry, and allowed the principal group, by an accentuation of color in various shapes and sizes, to stand out from it. *Geometrical shapes* and *forms* were often used in the arrangement of figure pictures to give importance to the subjects; thus Raphael, again, composed several "Holy Families" in the shape of a *triangle*. A *diamond shape* (as in Raphael's "Sistine Madonna") was used in order that the many features of the subject should be so grouped that each part might help to tell the story. *Circular* and *elliptical* composition was also used (often by Botticelli), being adapted for variety of light and shade. In the beautiful cartoon of Raphael in South Kensington, "Christ's Charge to Peter," he has based his design of the figures on a *serpentine line*. This allows an opportunity for alternate masses of light and shade to come into the group. It was in reference to this picture that Constable noted the "beautiful pastoral landscape." The old masters often introduced their *horizons* very low, to give fuller play to their cloud effects. This seldom happens in "nature," unless the spectator looks upwards or is situated below the figures.

Another rule which holds good is that the composition of figures in a picture must not be so obvious as to suggest that they are only there to fill some otherwise *empty space*.

No *figure* or *principal subject* should be exactly in the centre or central line of a picture. It will be found that *horizontal* lines tend to give an effect of repose. These may occasionally be broken by a notch, and then continued, so as not to be too severe.

Again, *perpendicular* lines, it will be noted, give *decorative* effect. Michael Angelo, to suggest greater action in his figures, used a broken line. When masses of

light are separated from each other, in order to extend the brilliancy of effect, a spot of white or a light-colored object (as a cloud or sail) may be introduced. This will add to the quantity and shape of the light, and also give *breadth*.

In composing single figures to fit given spaces the square shape is the most difficult to fill. Generally the most symmetrical shapes look best. Then again, a part of the design was *emphasised* by lines leading to it, as in Leonardo da Vinci's "Last Supper," or by putting in most of the heads and figures complete, as in Raphael's "The Dispute of the Sacrament." Rembrandt did the same in his plate of "Christ Healing the Sick," in which he drew nearly all the heads complete. Although there are forty figures in the composition, not more than two heads are cut off in part. His wonderful drawing, of course, makes each face a special character.

In composition, to fill a given space, it will be found that it is quite easy to turn a figure round, if necessary, for the front and back view have often nearly the same outline. Again, the distance can be extended between two figures standing one in front of the other by suggesting more space in the perspective of the "ground plan." This is due to short and long distance perspective. It will be found that the point of sight and horizon determine many of the lines in a composition. Again, in decorative art there must be a 'beautiful pattern.' This is the most distinctive difference between that art and picture composition, for it is not the "thick line" in the drawing that makes the "decorative" effect, but the qualities which the pattern must have—unity, balance, shape, etc.

Another method often used by Michael Angelo, and amplified in our days, is the *rectangular method*. Instead of making the figures "complete" in themselves, the interest is extended by means of architecture and ground lines to a larger whole. The figure, not being made so

important, takes its place as part of the picture as a whole, into which are introduced rectangular lines of buildings, a landscape or sea. The figure will then have a less 'prearranged' appearance. A modification of the rule of always composing a complete figure in each picture is allowable, and is often done by cutting off the lower part or any portion of the figure. This helps to give interest to the arrangement.

In "decorative" composition, a head of a figure bending must not look too cramped, or as if it carried the frame on its head or arm.

It will be seen that *lines*, although playing a great part in design, are to be harmonised and merged into the effects which the *light and shade* require in a picture. The design without the effect of *half-tones and values* of different strengths cannot fill the scheme; the study of 'color' is also important. This will be particularly noticed in some photographs of pictures, which on comparison will be found to have exaggerated the lights



A SPANISH WINESELLER.

By H. F. W. GANZ.

and darks, and often from scientific reasons will not have the approximate values of the various colors correct. This leads to the classification of the two great divisions of artists: those that look for *outline* and *pure line* or *classical drawing* in their work, and those that give the *picturesque aspect* and the effect of *natural drawing* in their efforts; Ingres and Rembrandt being typical examples of the two ideas. In *classical* drawing, value of color, again, can be used to suit the expression of the idea which is to be conveyed; for example, Raphael and Poussin purposely laid less stress on it than on their design; while Rubens, though a great colorist, for the opposite reason made beautiful drawings to aid in the expression of his color values. Paolo Veronese's (Cagliari) drawing is as good as his color. Color, therefore, it will be seen, cannot be entirely disassociated from design, for the 'value' of execution must be in accord with its conception.

Color itself can be used either as simple 'color' or in 'values.' Rubens was a *colorist* who from the richness of his *colors* made a black appear red or blue; while Rembrandt, using only black and white, by the beauty of his *values* gave a fair representation of light. By arrangement of colors in composition it will be found that they can be divided into certain *hot* and *cold* tints, each relieving the other by contrast, thus giving harmony. Naturally, in a picture the colors must be softened by the introduction of neutral tones. That harmony comes from the *accord* of *contraries* is a natural fact, for red is never complete without green near it, or orange without blue. Both may be combined in a picture, with the necessary modification of neutral tones of white, black, and 'grey.' With these elements a *dominant light*, bright and central, may be placed, and the sombre values increased towards the extremities, as in the case of the sun setting. Again, an enormous range of the palette may be obtained by judicious arrangement in bunches,

and by subdivision of some 'colors' into more varied values and shades of the same 'colors.' This was Veronese's practice, which he carried out with great skill. From the foregoing remarks it will have been noted that some of the old masters' conventions were based more on tradition than on the study of Nature, the continual observance of which alone can save the artist from mannerisms, and that others worked on rules formed from natural laws. Again, some *colorists*, such as Titian and Rubens, represented the tones in their value and 'color' without the magic of light, and others were *luminarists*, such as Rembrandt, who makes light the most important thing. Later, Corot found that by the representation of the color of *atmosphere* he was enabled to carry the composition of Claude, on which he had based himself, a step further, introducing aërial perspective and open-air effect. Turner, reversing the Rembrandt theory of light and shade, with a mass of 'light' and few darks, carried the pitch and luminosity of color and light to a greater height and brilliancy.



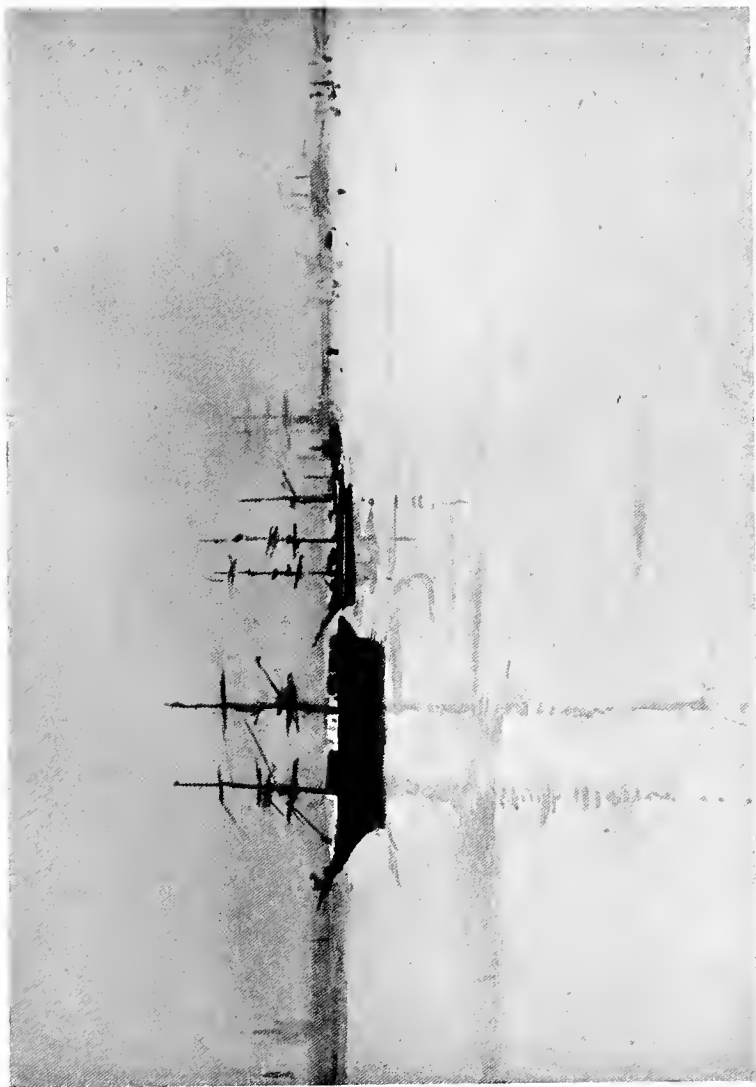
DON QUIXOTE AND THE GOATHERDS.

By H. F. W. GANZ.

The *key* of the picture having been decided the old masters made their *base* of either yellow for "still life," brown for indoors, or grey for out-of-doors. Then a picture was painted in a scheme of *silver* (or grey), using white, grey, green, blue, and black tones, or in a scheme of *gold* with the use of yellow, red, brown, and black tints in combination. It has in later times been established by the study of values that on first going out into the 'open' the effect of figures is that they are darker in tone than anything else in the landscape (and sky), and the horizon is found to be high above them. It will also be noted that the sky will appear as the lightest part, except sometimes at evening, when the light of the setting sun falling on a figure makes the flesh appear lighter than the sky behind it.

A great variety and difference of effect will be found in the play of *sunlight on color*; the blue of night and firelight each have their special characteristics, which modern painters are deeply studying. A number of French artists make a special point of studying the effects of *light on color*; also the possibilities of painting a picture *high in key* by placing white paint, as the highest light we have in pigment, and which it is in the power of the palette to give, and working up to this light, so as to get the height of sunlight and brilliancy of tone. We know that we cannot go beyond a certain pitch, and that certain effects are more possible in an effort of 'imagination' than in 'realism.'

The *transposition* of all the colors to a *lower tone*, which Whistler practised, would be the exact opposite to the scheme of working up to white. When used, this allows a "richer" effect (even of sunshine) to be obtained. With less use of white in the admixture of tones color may often be used pure as it comes from the tube, thus giving depth of tone. A preference for making a subject from the things that are about us, rather than the invention of "ideal" compositions, is also



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SUNDAY MORNING; HARWICH.
By H. F. W. GANZ.

[*"The Studio."*]

another trait of the modern artist. *A feeling for color* for itself, as an appeal to the color-sense, and *tone studies* as "motives," in opposition to the literary story, mark a later phrase in the art of to-day.

Abroad, decorative painting and the principles of "plein-air" have been much developed, both in figure and landscape work.

When a *subject* is not painted as a portrait (which is an exact study and impression from life) or as a piece of realism, it has either to be a "decoration," an "illustration," or result of an "impression," all these forms of expression allowing of great latitude. Exact truth of tone and effect is more possible in "interiors" than in "out-of-door work," when the study may have brilliancy of light and illumination observed at certain times of day and season. For the landscape-painter, the effects of nature passing so rapidly, a study of composition becomes an important factor in his work. Pictures may be painted from studies or laid in in certain arranged schemes, and the model used to help out the subject. Outline drawings will also be of service. Enlargements from small drawings, etc., can be made by squaring them, and placing the forms in larger squares in the same proportion.

Knowing how to paint is not *originality*, nor harmful to its development, for originality consists in expressing



DON QUIXOTE.

your own impressions. Let us take four personal and original men amongst the old masters—Raphael, Rubens, Rembrandt, and Watteau. Raphael expressed beauty in youth and spring and innocence; his style is youthful *beauty and spirit*. Rubens, delighting in strength and color, covers his canvases with the richness of the earth, variety of energy and passion; his style is *life and color*. Rembrandt, a profound observer and thinker, shows with truth the sad and sombre in life; his style is *suffering and mystery* of shadow. Watteau represents all that is charming in love; his style is *grace and beauty*. In the manner of painting, Watteau paints like Rubens, with the same freedom and method, yet we never confound them. Rembrandt has, more than is generally believed, the same technique as Rubens. This shows that originality comes not from method but from thought and feeling. What one must seek for is *character*, which is *life* expressed in movement, form, and color. These qualities give *strength*. Originality to-day may be exercised upon *subjects* which did not exist in the times of the ancients, or they would assuredly have used them. The beauty of the world around; the force and surroundings of machinery; the mysterious power of steam and electricity; the workmen at their labour, at rest, or in conference; woman, the mistress of the art of grace; and other such subjects to the observant will give abundant material for original composition.

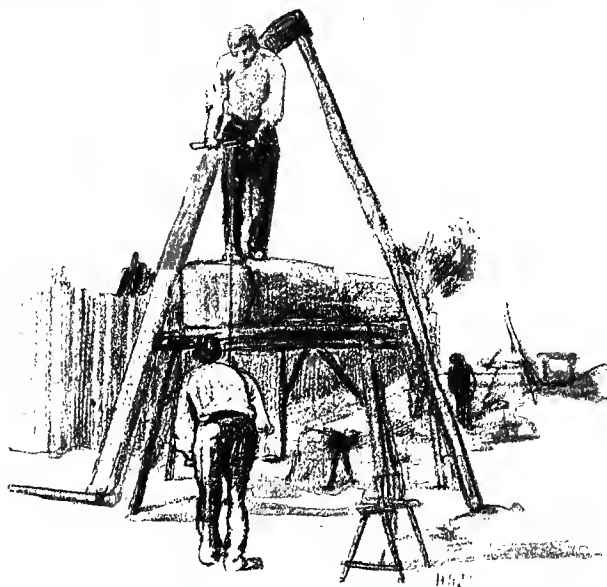
In *historical composition* there is selection of character, the costume of the period, time of day, effect, quality of painting as to texture, etc., to be noted. Other subjects are *genre* or small 'figure' pictures, the *reflection* of the artistic mood or point of view—*painting as document*, as "artistic" versus "natural" effect, or as simplification of nature. All these forms of picture allow of immense freedom of action in our day.



THE STORM CLOUD.
By H. F. W. Ganz.

OLD AND MODERN OUTLOOK

THE great originators and masters in their own time were—Michael Angelo, who delighted in the display of *human form*. His works are epics of humanity and expression. Titian, who painted "The Entombment," for the effect of a white body of the Dead Christ in contrast to the robust, auburn-locked Italians, and for the idea of 'beauty,' not for the sake of anything new. Velasquez himself learned something from Rubens, as may be seen in his early picture of "Los Borrachos." After his sojourn in Italy, the influence of Poussin and Reni (whom he met in Rome), and of Titian and Tintoretto, whom he greatly admired, is clearly noticeable in the pictures of "Mercury, Vulcan, and the Blacksmiths," "The Siege of Breda," and his later biblical subjects. His greatest originality was in the way he looked at things. What



he may have thought of "plein air" we do not know, for the fact remains that there is no evidence of it in the landscape backgrounds of his large pictures of mounted noblemen. His great sense of realism, truth of value, and of interior lighting and tone are unsurpassable, as may be seen in "The Tapestry Weavers" and "Los Meñinas" (Maids of Honour). In the same respect Ver Meer of Delft was a great master.

Amongst men of our time we find important innovators, such as Manet, Whistler, Cézanne, Degas, and Renoir, while in the extension of light and color, Turner and Monet saw fresh beauties. Ingres, Puvis de Chavannes, and Fantin-Latour have carried on classical composition to further limits. Puvis not only painted mural decoration, but made his pictures form part of the wall, by harmonising them to the surrounding stone by the use of grey-blue and white tones, thus obtaining decorative unity and completeness of drawing.

We find also the realism of Adolph Menzel, J. S. Sargent, and Charles Furse, and the idealism of Flaxman, Alfred Stevens (sculptor) Diaz, Rousseau, Decamps, T. Couture, Segantini, Carrière, and A. Rodin. The pre-Raphaelite choice of subject was the painting with great finish of marble, gold, and flowers; while the work-a-day life is depicted with much mystery of light and shade by J. F. Millet, who gave the note of the never-ending labour of the peasant, an entirely new idea in art. Both these styles of painting are appropriate in their way of technique and handling of paint to their different subjects. This last artist, Corot, and Courbet are the three nature-loving Realists of the middle of the nineteenth century.

A curious modern influence, in that it is an introduction of 'Eastern' into 'Western' art, has been the adaptation of the decorative method of the old Japanese colored woodblocks. With their spots of color and simple style of drawing, these, though not 'childlike,' have retained the clear outline of early art, and their beauty and

delicacy of line show a power of interpretation of natural truth with utmost simplicity. The influence of Japanese decorative spacing of color may be noted in Whistler's work; and in some modern French dry points the influence of the Japanese delicacy of line can be clearly noted. The first lessons learnt from Japan were applied to decorative art—lacquering, enamelling, china-making, etc. Starting in Europe about the middle of the nineteenth century, this influence led to the abandonment of some old traditions. This movement was the forerunner of the "Modern Style," which, with a tendency to exaggeration that is not in the models of the Japanese masterpieces of flowers and animals (painted or carved with a beautiful realism), has helped certain artists to develop their individuality and expression of original thought.

In contrast to ancient art, there is a tendency in the art of to-day to become less national and more cosmopolitan. It is a fight not so much of national expression as of principle, in beauty of form, and mystery and intensity of light and color.

LANDSCAPE PAINTING

NOTWITHSTANDING the impatience of modern artists with many of the old masters' traditions, due to their being based more on convention than nature, it still remains a matter of interest to note how far they really ignored "nature" in their landscape work and how far they submitted themselves to custom. Allowing for the fact that the old masters delighted in the display of human form as their chief motive, it was, of course, of paramount importance to attach most study to that side of their art. Soon, however, it was found that hardly any single figure or study could be painted without some principle of "landscape" coming into the background, and on these landscapes they often lavished the utmost skill. That they constantly painted their figures in one effect of light and the landscape in another, without due reference the one to the other, is not of much importance, for the study of "open-air" atmosphere had not been taken up as yet, and even men who looked at things with what may be called a "modern outlook," such as Velasquez and Goya, often did the same thing in their landscapes. We know how even later on Turner "built" himself on the works of the old masters before allowing his genius full play, and how Constable in his *Lectures on Landscape Painting* insisted on the fact that a landscape artist should study his art scientifically through the art that had gone before, and traced the historical origin and progress of landscape painting from the early attempts in Italy, in the backgrounds of old "altarpieces," down to the work of the French and Dutch schools. I can barely touch upon more than the fringe of this interesting speculation, nor can I follow it through the different works mentioned in this chapter. Suffice

it to mention one early picture in our National Gallery, which seems to be essentially the work of a landscape painter pure and simple; I mean Patinir's picture (No. 1298, date 1489-1524). Other beautiful landscapes exist in the work of Giorgione, Titian, Mantegna, and Albrecht Dürer. As Turner himself (1775-1851) worked on the "Roman" model of Claude and Poussin, it is interesting to compare the result of his studies with those of Corot, who, although he also formed his style of composition on these masters, had no desire to express anything but beauty and rhythm of lines. Turner worked from the grey, brown, and blue of the Dutch school until 1805. Then he felt the influence of Claude's work (in mellow tones and classical composition) *c.* 1819. His middle period dates from his return from Italy to 1823-29, "Ulysses deriding Polyphemus." The last phase from then till 1843, "Approach to Venice." In this period he heightened the scale of his color scheme in his search for the power of giving luminous effect.



THE WHITE MILL.
By WILLIAM MÜLLER.

LESSON IN STARTING A LANDSCAPE STUDY

ONE of the most important points to consider in *starting a landscape* is to find the lines that will give a notion of the *planes* of the ground. Upon these the rounded or square surfaces of the objects to be represented can be placed, attention at the same time being paid to the *atmosphere* they live in. Having built up the ground-surface organically, one has to notice how the *tree-trunks* grow out of the ground, how they are lost at their base, and show most distinctly as a mass against the sky.

TREES.—It will be found that more character is given to a tree by the few lines suggesting the trunk than by an elaboration of the foliage in detail.

The *leaves* should be treated as a mass in the centre of the tree, and modified or lost at the "edges."



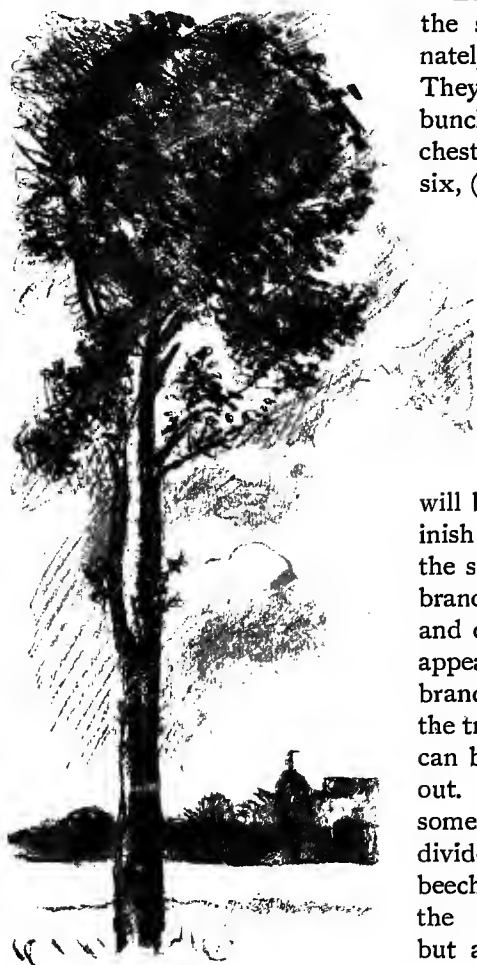
(i.) THE AVENUE. FOUNDATION STUDY FOR PICTURE.

Further, they alter in perspective as the point of view is from below or above.

The *principal trunk* has the thickness that the sum of all its branches added together would have, and as much root as the size of the whole tree. The complete tree follows in general line the same form as a single leaf.

Leaves grow out of the stem either alternately or opposite. They may be in bunches of four (horse-chestnut), five, (oak), six, (rhododendron), or more. At the end of the spray they fall in groups. Leaves curve upwards from the *law of deflection*.

The *stem* will be found to diminish in size only after the separation of each branch. In the oak and chestnut the trunk appears lost among the branches. In the fir, the trunk and branches can be traced throughout. The *branches* of some trees are subdivided, as in the oak, beech, birch, etc., while the poplar possesses but a few small twigs.



The angles at which the branches shoot forth from the parent *trunk* must be noted. In the *oak* they make abrupt curves, in the *ash* they start at smaller angles, and so on. The *foliage* is usually grouped in round or oval shapes; but such trees as the beech and the cedar have twigs in the form of layers. It will be observed that *single trees* often show well-defined roots.

The *light spaces* between the leaves and boughs should be darker than the sky in tone.

Taking a landscape as made up of *shade*, *half-tone*, and *light*, one will notice where these tones are, and how they come in relation to one another. For instance, *the sky* from whence the light emanates is usually lighter in tone than anything else in the whole landscape, although other parts may appear more brilliant from contrast to their surroundings. Noticing the larger division of *light and shade* will give you—(i.) the



shadows, which explain the shape of the object; (ii.) *the half-tint* and (iii.) the high light; (iv.) the reflected light and (v.) the cast shadow.

As drawing is the foundation of painting, a certain correctness and facility should be arrived at by the student before going to painting or color.

In *landscape painting* there will be found more gradation and a wider range of colour than in figure painting. The effect of the *play* of light will alter the tones and colors of objects, and should be carefully studied, *colors* in painting appearing as such only in relation to the colors surrounding them.

The *first studies* in landscape should be careful pencil outline drawings, followed by studies in charcoal in a few tones. The general shapes and masses of the forms should be drawn and put in, with the principal shadows well marked, and the mass of the landscape should be blocked in in full tones in contrast to the sky.

Suggestions as to kinds of studies to do will be found in the various illustrations to this book. The original studies by Constable may be seen in South Kensington Museum, and the drawings and proofs of Turner's "*Liber Studiorum*" will be found in the National Gallery and Print Room of the British Museum respectively. Lessons can be learned from the collection of Cotman's water-colors and sketches in the latter place.

To the more advanced students the principles of the art of landscape painting will appeal in Hobbema's "*Avenue, Dortrecht*" (National Gallery), in the works of Corot, Decamps, Rousseau, Cazin, and Daubigny; in the decorative landscape work of George Mason, Lord Leighton, the German artist Arnold Böcklin, and the pictures of Cecil Lawson and Whistler. If it is allowable to mention the names of living men, the poetical works of Alfred East have a fine sense of composition in them, and those of F. Thaulow of the 'life' and 'movement' of running water.

LESSON IN THE PROGRESSION OF
PAINTING A LANDSCAPE STUDY

THE following colours will be found useful: cadmium yellow (Nos. 1 and 2), yellow ochre, Naples yellow, Venetian red, raw and burnt sienna, burnt umber, golden ochre, crimson lake or rose madder, Vandyck brown, vermilion, cobalt, terre vert, emerald oxide of chromium, French ultramarine, indigo, white, and ivory black.

Brushes should be of hog's hair, round and flat, of various sizes. One should also have several sables. Spirits of turpentine, linseed oil, poppy oil, a dipper, a palette, and a palette knife will be wanted.

Having *drawn in a charcoal sketch*, the general masses and shapes of the forms and shadows should be painted in, in simple colors, with large brushes, different ones being used for the various tones. The general colors of the objects may be rubbed in, leaving the sky till the end, special attention being paid to effect. Methodical habits must be cultivated, for it will be found that, as a rule, it is not possible to work for more than two hours at a sitting out of doors, without the effect changing. For this reason it will be necessary to make drawings and memoranda. The *sky*, for instance, to a great extent must be done from pencil sketches, and in many parts of England only *foreground* subjects, and trees that are not in the farthest distance, can be completely painted in on the spot. *Memoranda* can be made on tinted paper, which stands for the middle tint, the darks being put in with chalk or charcoal, and the lights noted with white chalk. Pastels are useful for making 'rapid' notes of effect and finished studies in colour.

As regards the *technique* of landscape painting in oil, one finds that certain small touches give a more



(ii.) THE AVENUE. OIL SKETCH OF THE SAME.



(iii.) THE AVENUE. FINISHED COMPOSITION FOUNDED ON THE
TWO FORMER STUDIES (i.) AND (ii.).
By H. F. W. GANZ.

just effect of the texture of trees, sky, ground, etc., than the full solid tones used in flesh painting.

EFFECT.—It will be remarked how *sunlight* shows up the forms of shadows on objects, and give them character, and how useful *cast-shadows* are in indicating the shape of the surface on which they are thrown, and the undulation of the ground. This assists in the effect of *aërial perspective*.

It will be noticed, when looking from a shaded place into the sunlit part, that the shadow one sits in seems warmer in comparison to the cast-shadows of the objects in full sunshine. These, in painting, must not be forced, or they will look like pools of water. The effects of 'twilight,' 'afterglow,' 'grey days,' 'rain,' and 'snow,' which will be observed to reflect tints from many sources on its white colour, will be separately studied and noted.

At *sunrise*, when there is a certain density of atmosphere, the disk of the sun is visible in a yellowish light tempered with grey. The scheme of color playing round



RAIN : THAMES DUST BARGES.

By H. F. W. GANZ.

the sun at sunrise often takes tints radiating from white, pale yellow, and vermilion, to pale cobalt and ultramarine.

At *sunset*, when the atmosphere is less dense, the color of the light is more brilliant and less interrupted, and tinges every object placed within its influence with the same hue. The copper sun may be surrounded by cold green-grey blue tones, or the red sun by a grey tint, the clouds being all the colors of the rainbow. The 'rays' of the sun are visible only when the sun is half-hidden by a cloud, a hill, or trees.

The SKY should be taken last in painting, in order to keep it higher in tone than anything else in a picture. One can start the effect of a tree against the sky by first painting in a tint made up of these two subjects combined. On this preparation one can get the sky up to height of value in repainting without making a hard edge to the tree. It will often be found necessary to keep a warm tone in the sky, for the patch of blue paint will not give any idea of the effect of light in the sky (the blue is warm, as well as 'blue' in color).

The *blue of the sky* is occasioned by minute reflections and refractions of the sun from particles of vapour, more subtle than those that compose the clouds, and but for which, in place of the azure, there would be a void of darkness.

CLOUDS.—It will be observed that clouds in their positions and forms follow the laws of rectilinear and curvilinear perspective. Clouds are visible vapours at a height.

In their shapes, which, with their shadows, must be carefully studied, variety of cloud-forms will be noted.

The *Cirrus*, which is a thin cloud on the blue sky, is seen at a great elevation in fine weather.

The *Cumulus*, of dense mass, a cloud of rounded, well-defined shape, towers in form on a horizontal base, and moves with the wind.

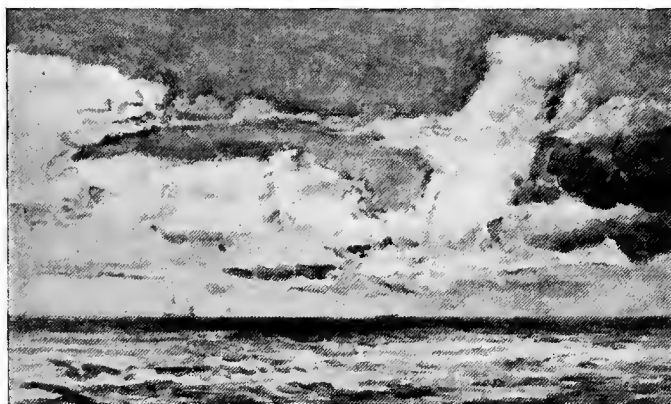
Stratus, the lowest, is often a low, flat mist.



MORNING.
Effect on a Grey Day.



AFTERNOON.
Effect on a Grey Day.



SKY AND SEA : CUMULUS CLOUDS MOVING WITH WIND.

Cirro-cumulus is a united mass of *cirrus* and *cumulus*.

Cirro-stratus, called mackerel sky, is the precursor of tempestuous weather.

Nimbus is a very dense cloud, and covers everything till it breaks into rain or storm ; when broken, the flying clouds are called "scud."

Clouds must have movement in painting.

The *Moon's* illuminating power is very much smaller than that of the sun's, and its shape when seen in daylight is smaller and fainter. A man about twenty-five yards off would cover its disk with his head.

In the *foreground* a tree trunk may run right out of the top of the picture with more advantage than in the middle distance, and the laws of perspective will not be broken. A small tree may be placed in the foreground, and the place for the complete tree will be found to be about the middle distance. Farness and nearness have to be pictorially felt, and there is often less to be noted in the foreground than in the distance.

The *selection of effect* in a landscape is essential, and in composition there is a way of concentrating or of scatter-

ing light which is of great importance. The painter must also study the construction of buildings and their effect as masses. *See illustrations of same subject* MORNING and EVENING on sunny day, and TWO EFFECTS on GREY DAY.

As to *values*, the white house over a stream in the distance may have 'grey' walls, and still tell bright amongst its surroundings by contrast, and may have a light reflection in the water, all these lights being of different 'values' of white.

WATER in certain lights reflects in a lower tone everything over it; that is to say, everything over the



OLD WATER MILLS.

From the Crayon Study by H. F. W. GANZ.



OLD WATER MILLS.
Morning Effect on a Sunny Day.



OLD WATER MILLS.
Evening Effect.

horizontal line is reflected in still water the same size and the same distance below this line as they are above it.

The *horizontal line* should indicate the height of the eye, and should not be too high in landscape-painting. (The point of sight is on the horizontal line.) It is an elaborate study to notice the effect and variety which the 'current' gives a stream, the 'density' and 'color' of water, and the effect of 'sunlight,' 'cast shadows,' and 'wind' on water, and the "oily quality" may also be noted.

THE SEA has its own peculiarities, which include forms of various shaped waves. *Waves* are "natural" or accidental; the *surface-water* is only influenced by the inequalities on the shore; waves are urged on by wind till broken into breakers and surf. When water is *agitated* or meets impediments, the waves are higher.

The *horizon* and *roundness of the globe* must be noted. If the water of the sea were motionless we should see the sun's disk exactly reflected, and once only, the rest of the water would reflect the sky; but as such stillness seldom occurs, the *light of the sun* is spread on the surface by innumerable reflections, the spaces between them reflecting the sky. The clouds also reflect the sun and portions of the sea. When clouds intercept the reflections of the sun, the reflection of the sky remains, causing patches of shade which stripe the sea with blue shadows. A similar effect can be seen in a meadow, the light of the sun being refracted from every blade of grass, and where intercepted, showing the reflection of the sky.

SHIPS.—The laden mark in the hull of a ship is the point of equilibrium of a vessel. When heavily laden it has less buoyancy, and the waves pass over the decks. In *calm weather* certain upright lines describe tranquillity, while the masts will be out of the perpendicular in agitated water.

With advanced study out-of-doors it will be noted that except the distant tone of a landscape, which is of a bluish tint, on a moderately bright day a great part has a decided violet tone, from the *atmospheric effect*. In painting, this will give the suggestion of *aërial perspective*. This must not be confused with the condition of atmosphere, or the 'key of color.' *Values* and the *play of light on color* must be continually studied; this will show that the *sky-line* is more accentuated than the foreground. Thus the tree on the top of the hill may tell darker against the luminosity of the sky than a tree lower down the hill, which may itself be lighter than its background. *Harmony* may be obtained by contrasting hot and cold colors, and modifying them by *neutral tints*. *Aërial perspective* shows that a man on the road near at hand is stronger in 'value' than one farther off. The aërial perspective of all receding roads or streams is greatly assisted by shadows thrown across them. Corot often rubbed in a grey over his foreground, and led the eye to the middle distance to give reality to the place. His color was got by careful distribution of values, and he often blended grey and green with half-tints, in which the color disappeared. Without 'atmosphere' a landscape becomes a mosaic. *Figures* may often be introduced into landscape as notes of color; they also form valuable upright lines and dark values. In *composition*, greater beauty is to be found in certain lines which flow past in the foreground instead of coming straight out of the picture; for example, a winding road or the bank at the side of a stream so treated. A feeling of repose will also be obtained by the employment of horizontal lines.

To give breadth of effect, one or more spots of light or a light-colored object may be introduced to connect masses of light separated from one another.

Water and *moving objects* can only be carried out



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H.M.S. POWERFUL OFF DURBAN.
By H. F. W. GANZ.

["The Studio."]

by means of notes, assisted by the memory. The French have a method of *drawing from memory*, on the principle that as drawing is memory of what you study, you can with practice learn to retain the image for any length of time, and not only its form, but also its tone, color, and effect.

Landscape painting must be the record of a mood, impression playing an important part. The effect of a church in a dull grey street will suggest nothing unless the painting is interesting; a railway train, from the association of ideas connected with it, without the effect of steam and the play of light in the atmosphere, will not make a picture. It will therefore be seen that the particular effect of the selected subject must be suitable for painting. A grey effect in a street may suggest nothing all day, till the lamps are lit, and give small glimmering dots of yellow on the blue. The row of dingy houses opposite may look ultramarine against the sunrise; the hideous gas-works and chimneys may be red against the crimson sunset, or purple against the yellow afterglow. In pure landscape a meadow that looks uninteresting in the twilight may sing in the morning from the illumination of the sun, and a small stream wandering through it may appear in jewelled light at sunset. Again, the leafless tree has its beauty.

THE FRENCH IMPRESSIONIST SCHOOL.—The term derived from the title of a picture by C. Monet of a sunset exhibited in 1863 as "An Impression." When Monet and Pissarro, in 1870-71, came to London, the study of the works of Turner, Constable, and the Norwich School gave them or developed their idea of *heightening* the pitch of light and effect in landscape painting. These ideas were developed from the theory of the analysis of color into six pure colors — red, yellow, blue, and their contrasting colors — green, purple, and orange; white being included, but not black. These

colors are put on unmixed, and the eye is supposed to reunite them when seen at a certain distance. The idea germinated in the principle of abolishing the conventional brown of the shadows, and using only those colors mentioned. Their aim was *brilliancy of light* and illumination observed at certain times of day and season, painted on the spot, and only during the effect. They noted chiefly elusive effects, and treated form in a summary fashion, especially water in movement. C. MONET and the Impressionists knew all art that had gone before their own time, before they worked out their personal views founded on the impression that Nature made on them. The subjects chiefly chosen were—

MONET.—‘Trees,’ ‘water,’ ‘floods,’ ‘workers on the river-sides,’ ‘railway stations,’ ‘snow,’ and the effect of sun on cathedral buildings.

PISSARRO.—‘Water,’ ‘roads in sunlight,’ ‘flowers,’ and ‘Paris views.’

CÉZANNE and SISLEY.—Landscape and ‘flower pieces.’

RENOIR and MADAME MORISOT.—Figure subjects, portraits, and flowers.

BOUDIN.—River scenes and seascapes.

YONGKIND.—Landscapes.

MANET.—Portraits, figure subjects in Spain and France, and some landscapes.

E. DEGAS.—Portraits, figures in ‘interiors,’ ‘racing scenes.’ And in pastels, chiefly subjects of the theatres, ballet girls, and ‘work-women’ in the laundries, etc.

This school or group were followed by the Pointillists, who continued with the same set of colors unmixed, and put the paint on in small dots. Their aim was to obtain light in all its phases, and the power of making pigment give the “impression” of luminous effects.



AN AVENUE IN FRANCE. WATER-COLOR STUDY FROM NATURE.

LESSON IN METHOD OF PAINTING IN
WATER COLOR, IN REFERENCE TO
LANDSCAPE

THERE are various qualities of *paper* employed in water-color painting. They vary from *rough hand-made* to 'hot-pressed,' which is very smooth. A paper of medium surface is best, such as the Whatman's "Imperial," "O and W," etc. The paper, if not ready strained on cardboard, has to be well sponged with



water and then stretched on a drawing-board, and pasted or pinned down at the edges.

A variety of *brushes*, sable and camel-hair, round and flat, will be necessary; also a sponge.

In general, the following will be found a useful list of safe colors: aureolin, cadmium yellow, yellow ochre, Venetian red, burnt sienna, crimson lake or red madder, brown madder, Vandyck brown, vermilion, cobalt, emerald green, emerald oxide of chromium, French ultramarine, indigo, and black.

An outline having been drawn with a hard lead-pencil or piece of charcoal, a faint tint may be used (as yellow ochre or Venetian red) for *painting in* the outline and shadows (Turner sometimes introduced red outlines); and *slight tones*, which will give the values of light and shade, can now be painted in in a few big washes of flat tints. This will slightly cover the paper, and counteract the effect of too much blank white paper, which has such a distracting effect when working from nature. Certain *lights* must be left, for the peculiar whiteness of the water-color paper left untouched cannot be rivalled by body color. In continuing, *big washes of color* and plenty of water can now be used, and the *darker tones* added over the first faint ones (keeping gradations with the handling). Some painters prefer to keep their tones darker from the first, and wash them down, to lighten them, with a sponge, rag, blotting-paper, etc.

Fine brushes can be used to add the drawing when the water-color is dry, and *lights* can be rubbed out by first damping the paper and then rubbing with indiarubber or a rag. It will be found in *painting "water"* that broad flat washes, leaving a decided edge of the right form, can be used, as softness of outline prevents transparency. The "art of summary expression" in drawing must be practised, because the effects of nature pass quickly.

COLORS should suggest themselves to the artist, but in order to facilitate the first endeavours of the beginner, the following are a few mixtures which can be used in different tones as required :—

FOR SKY.—*Cobalt* may be mixed with *crimson lake* or *Venetian red*, or *brown madder* or *Venetian red* and *black*. *French ultramarine* may be mixed with *crimson lake* or *Venetian red*, or *brown madder* or *Venetian red* and *black*. *Indigo* may be mixed with *cobalt*, *crimson lake*, or with *Venetian red* or *brown madder*, or *cobalt* and *black*.

FOR LIGHTER CLOUDS.—*Red madder* or *crimson lake*, *Venetian* or *Indian red*, *brown madder*, *French ultramarine*, and *cobalt*.

FOR TWILIGHT.—*French blue*, *indigo*, *crimson lake*, *brown madder*, *ivory black*.

FOR TREES.—*Indigo*, *cobalt*, *French ultramarine*, with various *yellows*, *gamboge*, *Indian yellow*, *burnt sienna*, *red sienna*, and *brown madder*, and *sepia* with *Indian yellow*.

FOR BUILDINGS—ROOFS.—*Burnt sienna*, *yellow ochre*, 'greys,' *brown madder*, *indigo*, *cobalt*, and *black*.

TILES.—*Burnt sienna*, *yellow ochre*, *red lake*, and *sepia*.

LIGHT BUILDINGS.—*Yellow ochre*, *brown madder*, *sepia*, *indigo*, *cobalt*, and *black*.

STONE BUILDINGS.—*Red lake*, *burnt sienna*, *brown madder*, *French ultramarine*, *indigo*, *black*, *Venetian brown*, and *French blue*.

SHADOWS.—*Burnt sienna*, *Venetian brown*, *indigo*, and *grey-blues*.

FOR WOODWORK.—*Yellow ochre*, *sepia*, *indigo*, *black*, and *Venetian red*.

FOR THATCH ROOF.—*Yellow ochre*, *sepia*, *indigo*, *black*, *raw sienna*, *cobalt*, and *brown madder*.

FOR WATER.—*Yellow ochre*, *burnt sienna*, *indigo*, *Venetian brown*, *brown madder*, *cobalt*, and *French blue*.

FOR BOATS.—*Raw sienna* and *Venetian brown*.

FOR SAILS.—Colors from *light grey*, *yellow*, to rich *burnt sienna*, *brown madder*, or *Vandyck brown*.

FIGURE PAINTING IN WATER-COLORS

THE flesh is carried out in a modified method of the 'oil' process already explained, and similar tints may be used. Attention must be paid to the effect of the 'white' ground of the water-color paper and to the distinction in the use of water, which takes the place of the white pigment that is used in 'oil.' Discretion will suggest where and when 'chinese white' should be used in all water-color work.



STUDY OF A HEAD FROM LIFE IN WATER-COLORS.



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DUSK : LEICESTER SQUARE.
From the Etching by H. F. W. GANZ.

[*"The Studio,"*

PRACTICAL LESSON IN THE ART OF
ETCHING

UNLIKE painting, *etching* does not concern itself with the actual 'color' of the object you wish to represent. It notes principally 'lines' and 'black-and-white' effect. The drawing must be good, as the work on the copper is reversed in the print that is taken from it. It is more suited for character than fleeting effect.

For etching on *copper* you require certain materials.

A *ground* of *wax*, which must be laid on the *plate* to resist the action of the acid.

A *needle*, or several of varying degrees of thickness, to execute the drawing.

In *preparing the plate* the *liquid ground* now generally used is poured on gently, the plate being evenly and thinly covered and then allowed to dry naturally. According to the older process, the plate is heated by being held with a *hand-vice* over a gas-jet or 'printer's stove,' then laid flat and the *black wax* (wrapped in silk) rubbed all over, and equalised with a *dabber*. This ground is at once smoked with lighted tapers (this is to take the pencil drawing later on), and allowed to dry cool.

On these *grounds* you transfer your drawing with tracing-paper, or you draw the line straight in (the needle should just feel the surface of the copper). These "scratches" are afterwards *bitten-in* with *acid*, hence the word etch (Dutch "etsen" = to bite). In etched work, in the *drawing*, attention must be paid chiefly to—(i.) the *outline*, which can be modified; (ii.) the *light and shade*, beginning with the shadows, which can be drawn either with lines close together or crossed; and (iii.) the texture.

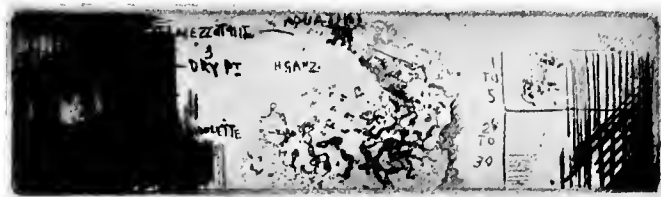
PROGRESSION OF ETCHING.—Having made a *drawing* you can either copy it on to the *prepared plate*, or trace it by means of tracing-paper. For this purpose you use a *black-lead pencil* or *red chalk*, and go over the line on the *reverse side* of the paper. This side you lay on the plate, and then you rub over the surface with a *burnisher* or piece of used yellow soap.

A *sheet of gelatine* and a sharp-pointed needle could also be used, and black lead rubbed on the reverse side will answer a similar purpose; both will give you a *faint outline* on the prepared ground upon which to work. Except for portraits or copying a picture, a "reverse" is optional in drawing on the plate.

The kind of *line* must have reference to the biting; for if a slight effect of "pen and ink" is sought for, the lines must be close together and laid on with slight pressure equally all over.

For *deep shade* the *darkest* lines may be kept apart and very deeply bitten, for in biting the lines widen. The white spaces between them will vary in proportion to the biting.

The *medium* and *lighter* lines may be 'drawn' near together, slightly bitten, and *stopped out*. Having *completed* your *drawing* with the needle on the 'copper,' the *back* and afterwards the *sides* of the plate are then covered with *brunswick black* applied with a paint-brush, to prevent the mordant eating into them, and then



FROM PLATE SHOWING SPECIMENS OF MEZZOTINT, AQUATINT, AND THE BITING OF NITRIC ACID, FROM 1 TO 5 AND 20 TO 30 MINUTES.



PREPARATORY DRAWING WITH NEEDLE ON PREPARED GROUND.

left to cool naturally. When quite *dry* the plate is laid *face upwards* in a *porcelain bath*.

Nitric acid (a poison) is used in proportion of 1 part to 3 parts of water; this is *gently poured* over the plate, just covering it, and *the action of the acid on the copper* is soon apparent.

The *biting-in* takes from seven to thirty minutes (or longer). The longer the plate is left in the bath the 'brighter' (and broader) the lines will become, that is to say, the darker the lines will eventually print. With experience in biting the plate can be taken out and the more delicate gradations (which may be bitten enough) can be stopped out with brunswick black applied with a brush. When this is dry the plate can be put back for the "darker" lines to be more *deeply bitten*, and so on till the "darkest" are bitten deeply enough. It is well not to bend too much over the bath; and a splash from the

acid must be avoided, as it will spoil the clothes or burn the skin.

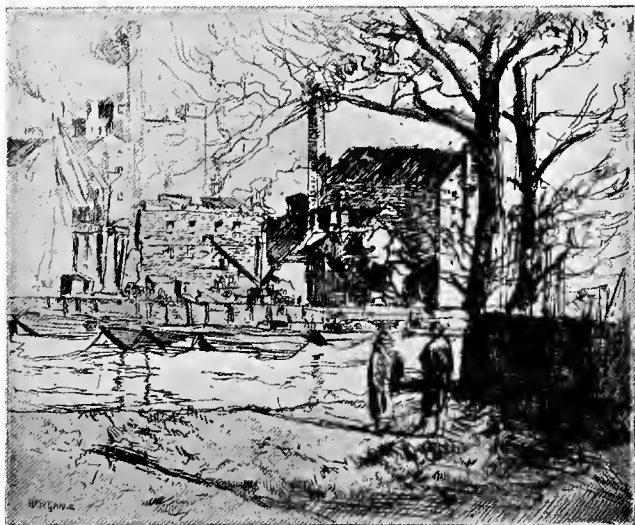
In *taking the plate out* of the bath, either dip the hands first in cold water and lift it out, or with a small piece of wood guide the plate to the side of the bath and then take it out. The plate is now laid in a basin of *water* or under cold running water, and afterwards dried with blotting-paper. The *acid* is poured back through a *glass funnel* into a bottle with *glass stopper*, and should be left standing, locked up for safety.

The *ground* is now *washed off the plate* with *turpentine* and a rag, when the etched work will be apparent. The *back* and *sides* are cleaned in the same way, and the plate will be ready for *printing*. A proof having been taken, the plate can then be carried further, either by *regrounding* with a *transparent-ground*, worked on as before and rebitten by the same processes just explained, or the *shadows* can be darkened with *dry-point* with the edge of the "bur" which is ploughed up, scraped down with a scraper. To *lighten* lines that are *too dark*, the scraper and burnisher with olive oil can be employed, or *charcoal* and oil may be used.

The *printing* wants great experience, and it is well to go to a specialist printer for this purpose. The *paper* is damped with water and blotted. The *plate* has to be heated on a printer's stove, and the *ink* (which is mixed with burnt linseed oil) has to be ground together with it, and applied with a dabber to the plate all over, and then rubbed off with a canvas cloth. Sometimes the lines are "dragged up" with a finer canvas or cloth, which gives them a richer blackness; this is called *retroussage*.

Whiting is also used on a cloth to clean the lights, (the margin, if any) and sides of the plate, which is then slightly reheated and placed on the bed of the press. The proper pinch being adjusted, according to the thickness of the plate and quality of the lines, the *paper*

is then laid on the plate, covered with blankets, and run through the rolling press. The blankets are turned back, the paper carefully lifted up, and the *first proof* will be "*pulled*." Each further copy will go through the same inking process and printing, after which the plate is cleaned with a rag dipped in turpentine.



HAMMERSMITH. PROOF FROM PLATE BITTEN, STOPPED OUT,
AND REBITTEN.

LIST OF MATERIALS AND TOOLS USED IN
ETCHING

Copper and zinc plates.—These metals being of a porous nature are peculiarly susceptible to rapid action of the acid. On the zinc plates the lines will be *coarser* in character. Before *grounding*, a plate should be cleaned with a soft cotton rag dipped in turpentine, and finished with whiting applied with a dry clean rag, as it is essential that all metals should be properly cleaned in order to take the ground evenly. *Copper*, for instance (a highly porous metal), which has a greasy surface, can be cleaned with 10 per cent. of ammonia and whiting. *Zinc* may be cleaned with benzine and whiting. Copper and zinc plates should never be stored together, as chemical action will ensue. Use diluted weaker acid to etch on zinc.

Liquid etching ground is poured in the *middle* of the plate in a small pool, and the plate is then inclined so that it may run to the sides and corners. Superfluous ground may be poured back through its 'proper' glass funnel into the bottle. Mixed as it is with chloroform, it dries rapidly naturally. It must never be heated.

Rhind's *transparent liquid-ground*, for rebiting, is applied in the same way. Another ground is made of *oil of spike*, which may be mixed with wax and put on a separate cold plate, rolled with a 'roller' and applied to the plate, and then smoked with lighted tapers and allowed to cool naturally.

Tracing-paper or *gelatine*, on which black lead or red chalk may be used after reversing the drawing.

Etching needles of various sizes (fine and thick points).—To *sharpen* a needle, pass it backwards and forwards on an oil-stone, holding it slightly inclined, and turning it continually.

A bottle of stopping-out varnish, which may be slightly diluted with spirits of turpentine if too thick.

Porcelain baths.

Nitric acid in a bottle with a glass stopper. IN USE, nitric acid may be in proportion of 1 to 3 of water; in the *action* the bubbles must be removed with a feather; for they may, with action of air, break the ground away from the *sides of the lines*. The *test* for the action of the acid varies according to its strength and temperature.

The actual test is the number of bubbles that come up from the continuation of action.

Among other acids employed are—(1) *Nitrous acid*. Similar to nitric, it is one-tenth less powerful, and may be used in proportion of 10 to 9 parts of water. It gives forth disagreeable fumes and bites in half a minute to four minutes. (The plate may be bitten up to about twenty minutes.) The *mixing of acid with water* produces heat, which must subside before the mordant is poured on the plate; never mix water with acid.

(2) *Hydrochloric acid*;

(3) *Perchloride of iron*; and

(4) *Dutch mordant*.

In the event of a splash, *spirit of hartshorn* or common soda will neutralise the effect of the acid.

White blotting-paper.

A bottle of turpentine.

A scraper.

A burnisher.

Gravers.

A burin.

A roulette, used to obtain tone in little dots.

A hand rest.

Several camel-hair brushes.

An oil-stone.

A blind or paper-shade to work under (made of tissue paper), stretched on a wooden frame.

The *finest emery paper*, and *crocus powder*.

Clean old rags.

A steel anvil, hammer, and calipers, to knock up from the back of the plate any lines too deeply bitten.

Some large pieces of charcoal.

Copper plates can be hardened for printing a large number of copies by a deposit of iron, applied electrically. (This is called *steel-facing*.)

VARIOUS FORMS OF ETCHING

SAND-GRAIN.—A method for obtaining tone (used by Professor A. Legros). It is applied after the ground is laid and dried, by placing a piece of *sand-paper* face downwards on the plate. This is then passed through the press, when the effect of the grains of sand is obtained, and will give tone. When, accompanied by 'needle'-work, it is bitten in.

SOFT-GROUND ETCHING (to imitate pencil-work).—*Tallow* is added to the etching ground, and a damped piece of *tracing-paper* is laid upon it and allowed to dry. The drawing is then made with a pencil. When the paper is lifted up it will be found that you have taken the ground off with the 'pencil marks,' and exposed the copper in these parts, which is then bitten in the usual way.

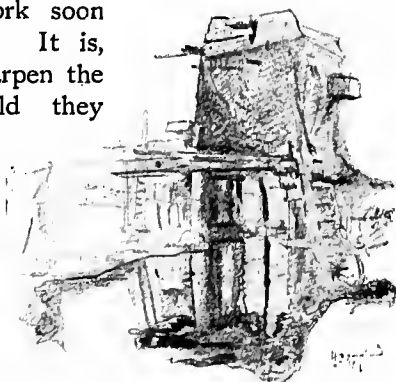
AQUATINT.—The copper plate is either sprinkled with *resinous powder*, then warmed and allowed to cool; or the resin may be dissolved in spirits of wine poured on to the plate (the less resin the finer the grain), and allowed to dry. The lights are stopped out, and it is immersed in the acid bath. The forms are obtained in this process by stopping out, etc. (there are *no* lines). The *ink-holding capacity* of the plate is obtained from the acid biting between the specks formed by the powdering on of resin. Soft-ground and etched lines may be mixed, if desired, with aquatint. First aquatinter, Le Prince.

DRY-POINT.—As the point of the needle, held slightly inclined, scratches on the copper, it raises a 'bur,' which retains ink in printing. This, if the darkest 'velvety' effect is not wanted, can be reduced by the

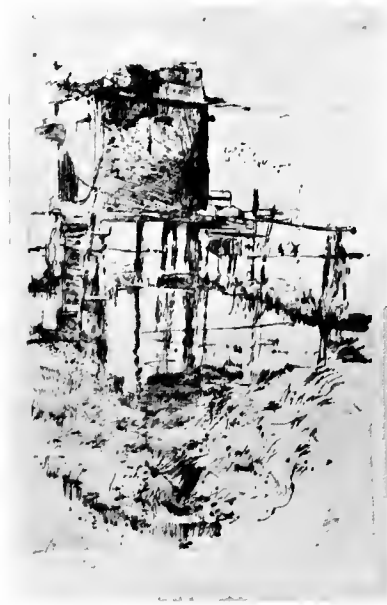
scraper. Dry-point work soon wears out in printing. It is, however, useful to sharpen the paler passages, should they want strengthening.

COLORED ETCHINGS are printed with colored inks on a plate prepared with a mixture of etching and aquatint. The different tints are put on with little dabbers or stumps.

The plate has to be specially colored for each proof.



PRELIMINARY STUDY FOR 'DRY-POINT.'



FISHERMAN'S HUT: FROM THE
'DRY-POINT.'

MONOTYPES are printed with the ink put on and rubbed with rags and brushes to obtain the effect.

In ETCHING pure and simple, the line is the reverse of the wood-cutting method, in which the surface only prints, the engraved parts producing 'white.' The section of an *etched line* on copper is U-shape; it will hold a greater quantity of ink than the V-shape one ploughed by the burin in *engraving*. Rembrandt, it seems, often started his etchings with dry-point. Whistler, for

fear of breaking the ground with the mordant in the bath, frequently used a brush, applying weak diluted acid for his delicate work. Méryon bit his plates from seven to sixty-five minutes; and Sir Seymour Haden, it is said, bites from three to fifty-five minutes.

For *alterations* in etched plates, the *deeper* lines may be burnished smooth. If very deep, they can be scraped and then polished; or the places may be ground into a smooth hollow, and the part afterwards measured with the calipers, the plate reversed, laid on a small anvil, the spot marked and knocked up with a steel hammer and punches. This requires extreme care and skill. To make certain passages *paler*, you can either burnish them, or use charcoal and oil. To *efface them entirely* the scraper and charcoal can be used. To *darken*, a transparent ground can be applied, the 'work' relined and then rebitten to the required strength.

It will be found that 'fine' lines and dots make a better effect than heavy lines, for while the 'thick' line agrees with the nature of a wood-cut, it often gives an unpleasant heaviness to the etched plate, and reveals the means by which the 'effect' is obtained, which is bad art. Employing as you do a 'fine' point, it is therefore no use whatever using too large a



SOLITUDE: (SECOND STATE).

plate. The plate ends at the border of the picture, and a margin is unnecessary, and if wanted may be obtained afterwards by laying a cut-mount over the print. To the *inexperienced* the chief difficulties in etching are technical, in that the artist cannot see his work properly as it proceeds, and the result is not known until the print is pulled. Mistakes are also liable to occur in biting.

Etching lends itself more than any art to spontaneity of impression. The directness and sensitive rapidity of the process enables the red-hot impulse to be represented with great facility upon the copper. The capabilities of the etched line are infinite.

The chief difference between etching and engraving is, that in the first the copper is eaten by acid to any depth required without hand-pressure, while in engraving the burin ploughs the furrow.

The origin of line-engraving, and etching, which was probably derived from it, is doubtful. Some say that it was practically invented by the fifteenth-century goldsmiths of Florence, who ornamented their wares with engraved spaces in which enamel was applied. In "Neillo" work, the space was often filled in with printers' ink and impressions were taken on paper. The Italians claim Tommaso Finiguerra (1400) and Francesco Mazzuolo (1504) as the first practisers of the art.



THE TOWER BRIDGE, LONDON: FROM PROOF OF PLATE BITTEN FOR 20 MINUTES WITH NITRIC ACID (DIL.).



MARS AND VENUS. BY MANTEGNA.

Portion of Plate etched by MARC ANTONIO (dated 1508). Third State.

Mantegna (1431-1506) did much skilful work, using a style of shading in straight diagonal lines on a thick outline, a 'method' quite his own.

Albrecht Dürer (1471-1528) is also regarded by many as the inventor of etching. He followed Schongauer in his method of shading in curved lines, a method quite different from the earlier Italian one; and he certainly used the burin himself, although he did not engrave all his plates or cut all his wood-blocks. He first tried etching by drawing with dry-point on his engraving-plates. The first known by him are dated 1510; "The Knight," 1512; his plate of "The Canon," 1518 (size $12\frac{3}{4}$ by $18\frac{1}{2}$ inches).

Etching, being chiefly concerned with the "picturesque"

spirit, which is tolerant and observant, the exact opposite to the 'severe' and 'academic' view, had its principal development in the Dutch School of the seventeenth century, which included the names of Rembrandt, Van Dyck, Vander Does, A. v. Ostade, K. du Jardin, P. Potter, A. van Der Velde, and a host of others.

In later times one finds (in Spain) works by Goya; in the early part of the nineteenth century works by Andrew Geddes (40 plates), Sir David Wilkie (14), Crome (30), Constable (2), Cotman (who used soft ground), Turner (in the outlines for the aquatints of his "Liber Studiorum"), and Samuel Palmer. About 1859, Whistler, Hamerton, Sir F. Haden, and others revived the art in England, and in France it is perhaps to be seen at its highest in the etched work of C. Méryon, J. F. Millet, C. Jaque, Appian, etc., and in later days, in plates by Bracquemond, Lalanne, Rajon, Jacquemart, A. Legros, and others.

OTHER METHODS OF ENGRAVING.—Some of which may be combined with Etching, are—

LINE ENGRAVING.—The plate, generally of steel or copper, rests slantingly on a cushion. The burin is used with the palm of the hand (the engraver pushing it away from him). Engraving is often started either with biting, or the lines are cut in very slightly with dry-point. By a later process the engraver can pull the tool towards him, the cutting point of the burin having been turned back.

MEZZO-TINT ENGRAVING is a process by which the plate is prepared by rocking on it with a 'rocking-tool' or 'cradle,' the ground being made in lines crossed in all directions, until the requisite effect of 'bur' is produced, so as to print a rich black.

Unlike etching, in this process of work you scrape the lights out of a dark ground. It is a 'positive' process. After indicating the drawing on the rocked plate with red chalk, the dry point is lightly used for drawing in; but nearly all the work remains in tones.



STUDY IN DRY-POINT : (FIRST STATE).
By ANDREW GEDDES.



EARLY DUTCH LINE ENGRAVING.
By H. GOLTZIUS.

For the *lighter tones* the 'bur' is quite scraped away to *the ground*, and for the *higher* lights the plate is polished with the burnisher. The *strongest light* will be obtained with the scraper and the use of the smaller burnisher. The first Mezzotinters were Prince Rupert and Lewis Siegen, 1641.

LITHOGRAPHY.—The drawing may be done direct on to a lithographic stone with a prepared pencil, or it may be drawn with the same 'greasy' pencil on lithographic transfer paper, which is then laid, face downwards on the stone, pressed, and the paper washed off. This drawing is then bitten in with nitric acid. From this stone the prints are taken. Lithography was invented by Aloys Senefelder in 1796.

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